

技术指标:

1. 塑件表面应光洁、无毛边、无明显收缩、缺陷、裂纹等现象。
2. 温度范围: -25° C~85° C, Working temp: -25° C~85° C.
3. 额定电压: 50V, AC/DC. Voltage rating: 50V AC/DC (rms)
4. 接触电阻: ≤40mΩ. Contact resistance: ≤40mΩ max.
5. 绝缘电阻: ≥100MΩ. Insulation resistance: 100MΩ min
6. 额定电流: 1A, AC/DC. Current rating: 1A AC/DC
7. 耐电压: AC 500V/1分钟. Withstanding Voltage: 500V AC/minute
8. PIN保持力: 3N min
9. 主体材料: LCP UL94-V0, 本色. Housing material: LCP UL94-V0, 本色
10. 端子材: 黄铜C2680, 镀镍50u" min, 镀亮锡100u" min. Terminal materl: Brass C2680, plating Ni 50u" min, plating Tin 100u" min
11. 焊片材料: 黄铜C2680, 镀镍50u" min, 镀亮锡100u" min. Solder tab material: Brass C2680, plating Ni 50u" min, plating Tin 100u" min

CT	Dima	DimB	DimC
2	1.00	2.50	4.20
3	2.00	3.50	5.20
4	3.00	4.50	6.20
5	4.00	5.50	7.20
6	5.00	6.50	8.20
7	6.00	7.50	9.20
8	7.00	8.50	10.20
9	8.00	9.50	11.20
10	9.00	10.50	12.20
11	10.00	11.50	13.20
12	11.00	12.50	14.20
13	12.00	13.50	15.20
14	13.00	14.50	16.20
15	14.00	15.50	17.20
16	15.00	16.50	18.20
17	16.00	17.50	19.20
18	17.00	18.50	20.20
19	18.00	19.50	21.20
20	19.00	20.50	22.20
22	21.00	22.50	24.20
24	23.00	24.50	26.20
26	25.00	26.50	28.20

序号	项目	描述	电镀
1	塑胶	LCP	
2	端子	黄铜	亮锡
3	焊片	黄铜	亮锡

REV(版本)	DESCRIPTION(描述)	NAME(名字)	DATE(日期)

品名 (TITLE)	料号 (DWG. NO)	制图 (DR)	校对 (CHKD)	审核 (APPD)
Pitch: 1.00mm 贴片 SMT	5001-SH0010A-**-R1-00			

比例 (SCALE)	单位 (UNITS)	页码 (SHEET)	尺寸 (SIZE)	版数 (REV)
1:1	mm	1 OF 1	A4	A

深圳市文章济美科技有限公司
Shenzhen Wenzhang JiMei Technology Co., Ltd

一般公差 (TOLERANCE)
X ±0.50 XX ±1.0
X ±0.20 XXX ±0.05
ANGLES ±1°

PRODUCT SPECIFICATION

1.0 SCOPE 适用范围

This Product Specification covers the performance requirements for Pitch 1.00mm WIRE TO BOARD SINGLE ROW CONNECTORS.

本规格书内容适用于 间距 1.0 系列线对板连接器的性能和检验要求。

2.0 PRODUCT DESCRIPTION 产品说明

2.1 DESCRIPTION 描述

DESCRIPTION 描述	Material 材质	Finish 镀层
Terminal 端子	Brass(黄铜)	Tin-plating 100u"
Housing 塑胶	NYLON66	Color :white
WAFER 180 SMT 卧贴	Plastic :LCP Terminal:Brass(黄铜) Solder:Brass(黄铜)	UL94V-0 Tin-plating 100u"
WAFER 90 SMT 立贴	Plastic :LCP Terminal:Brass(黄铜) Solder:Brass(黄铜)	UL94V-0 Tin-plating 100u"

2.2 DIMENSIONS, MATERIALS, PLATINGS 尺寸, 材料, 镀层

See the appropriate sales drawings for the information on dimensions, materials, platings and markings.

有关尺寸、材料、镀层和标记的信息, 请参阅相应的销售图纸。

2.3 APPLICABLE STANDARDS 适用标准

2.3.1 GB/T2421 Testing method for Environmental of Electrical Connectors Class 1:
General Principles

电工电子产品环境试验 第一部分 总则

2.3.2 GB/T2423 Testing method for Environmental of Electrical Connectors

电工电子产品环境试验方法

2.3.3 GB/T2424 Testing method for Environmental of Electrical Connectors

电工电子产品环境试验导则

2.3.4 GB/T5095 Testing Procedure/method for components of electric equipment

电子设备用机电元件基本试验规程及测量方法

3.0 USE CONDITION 使用条件

3.1 Ambient temperature Range 环境温度 :-25℃~+85℃

3.2 Applicable Wire Sizes 适用线规 :AWG#28~#32

3.3 Applicable PC board thickness 适用 PCB 规格 :0.6~1.2mm

Part Number 品号	Rev 版本		Date 日期	Page 页码	
		A	2020/9/12		
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)				
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作	Jason

PRODUCT SPECIFICATION

4.0 ELECTRICAL PERFORMANCE RATINGS 电气性能

4.1 VOLTAGE 电压
50 V [AC (rms) / DC]

4.2 ALLOWABLE CURRENT AND APPLICABLE WIRES 允许电流

Wire Size	Allowable Current	Insulation O.D.
AWG#28~#32	1.0 A	/

4.3 TEMPERATURE 温度

Storage Condition 储存条件	Temperature 温度	-5 °C ~ +35 °C
	Humidity 湿度	70%R.H. MAX. (No condensation)
	Terms 测试	Use within 24 hours after opening the package 开封 24H 内使用

4.4 DURABILITY 耐久性

Plating Type 电镀类型	Number of Cycles 次数
Tin Plated 镀锡	30 cycles 30 次

Part Number 品号	Rev 版本		Date 日期	Page 页码	
	A		2020/9/12		
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)				
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作	Jason

PRODUCT SPECIFICATION

5.0 PERFORMANCE 性能

5.1 ELECTRICAL PERFORMANCE 电气性能

ITEM 项目	DESCRIPTION 描述	TEST CONDITION 测试方式	REQUIREMENT 要求	
5.1.1	Contact Resistance 接触阻抗	Mate connectors and measured by dry circuit, 20 mV MAX.100 mA. 组合状态下的连接器，两端施以最大测试电压 20 mV 以及最大测试电流 100 mA	40 milliohms MAX ≤40 mΩ	
5.1.2	Insulation Resistance 绝缘阻抗	Mate connectors and apply 500V DC between adjacent terminal or ground. 相邻两接触导体，1 分钟时间内施予 500V DC 电压，测量期间的绝缘阻抗值	100 Megohms MIN ≥100MΩ	
5.1.3	Dielectric Strength 耐高压	Mate connectors and apply 500V AC(rms) for 1 minute between adjacent terminal or ground. Trip current 2mA. 组合状态下的连接器，相邻两导体末端各施以电 压 500V AC(有效值)时间 1 分钟，且漏电流必须 小 于 0.5mA(毫安培)	No Damage 无击穿	
5.1.4	Temperature Rise 温升	Mate connectors and all crimp terminals shall be connected in a direct series.The temperature rise shall be measured when the terminal reaches thermal equilibrium allowable current. 配合连接器和所有压接端子应串联的直接串联的当 终端达到热平衡允许电流时测量温升。	Temperature Rise	30 °C MAX

Part Number 品号	Rev 版本		Date 日期	Page 页码
	A		2020/9/12	
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)			
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作 Jason

PRODUCT SPECIFICATION

5.2 MECHANICAL PERFORMANCE 机械性能

ITEM 项目	DESCRIPTION 描述	TEST CONDITION 测试方式	REQUIREMENT 要求	
5.2.1	Crimping Pull out Force 端子拉力	Fix the crimped terminal to the jig, apply axial pull out force on the wire at the speed rate of 25 ± 3 mm / minute. 端子所压接电线, 以每分钟 25±3mm 速率之轴向拔出力	AWG #28	13N MIN.
			AWG #30	8N MIN.
			AWG #32	6N MIN.
5.2.2	Crimp Terminal Retention Force 端子保持力	Apply axial pull out force at the speed rate of 25 ± 3 mm / minute on the crimped terminal assembled in the housing. 施加轴向拉出力在 25±3 毫米/分钟安装在胶壳内的端子上。	8N MIN. 8N 最小	
5.2.3	Insertion and Withdrawal Force 插拔力	Insert and withdraw connectors at the speed rate of 25 ± 3mm / minute. 插拔连接器的速度为 25±3mm / 分钟。	Insertion<2N/PIN Withdrawal>0.2N/PIN 插入力<2N/PIN 拔出力>0.2N/PIN	
5.2.4	Header Terminal Retention Force 板端保持力	Apply axial pull out force at the speed rate of 25 ± 3mm / minute on the terminal assembled in the housing. 施加轴向拉出力在速度为 25±3mm / 分钟装配在外壳中的端子。	3 N MIN. 3N 最小	
5.2.5	Repeated Insertion/Withdrawal 板端耐久性	Insert and withdraw connectors 30 cycles repeatedly by rate of less than 10 cycles / minute. 插拔 30 次、10 次/分钟	Contact Resistance 接触阻抗	40 milliohms MAX. ≤40 mΩ
5.2.6	Vibration 振动测试	Mate connectors and subject to the following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during the test. Amplitude: 1.52 mm P-P Frequency : 10~55~10 Hz in 1 minute. Duration : 2 hours in each X.Y.Z.axes. Frequency(频率):10-55-10 Hz/minute Amplitude(振幅):1.52mm p-p Direction(方向): 1 Axis of up and down 上下轴向(Y 轴) 2 Axis of right the left 左右轴向(X 轴) 3 Axis of front and back 前后轴向(Z 轴) Period(周期):2 hous for each direction 每一个轴向持续 2 小时	Appearance 外观	No Damage on function 无损伤
			Contact Resistance 接触阻抗	40 milliohms MAX. ≤40 mΩ
			Discontinuity 不持续	1 microsecond MAX. 1 微秒

PRODUCT SPECIFICATION

5.3 MECHANICAL PERFORMANCE CONTINUED 机械持久

ITEM 项目	DESCRIPTION 描述	TEST CONDITION 测试方式	REQUIREMENT 要求	
5.3.1	Mechanical Shock 机械冲击	Mate connectors and subject to the following shock conditions. 3 shocks shall be applied along 3 mutually perpendicular axes, passing DC 1 mA current during the test. (Total of 18 shocks) Test pulse : Half Sine Peak value : 490 m/s ² (50 G) Duration : 11 ms 配合连接器和服从后冲击条件。3 冲击应沿相互垂直的方向施加轴，通过直流 1 mA 电流期间测试。(共 18 次冲击)测试脉冲:半正弦峰值:490 m/s ² (50 G)持续时间:11 ms	Appearance 外观	No Damage on function 无损伤
			Contact Resistance 接触阻抗	40 milliohms MAX. ≤40 mΩ
5.3.2	Crimp Terminal Insertion Force 端子插入力	Insert the crimped terminal into the housing 端子插入胶壳的力度	9.8 N {1.0kgf} MAX 9.8N 最大	

Part Number 品号			Rev 版本	Date 日期	Page 页码
			A	2020/9/12	
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)				
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作	Jason

PRODUCT SPECIFICATION

5.4 ENVIRONMENTAL PERFORMANCE 环境测试

ITEM 项目	DESCRIPTION 描述	TEST CONDITION 测试方式	REQUIREMENT 要求	
5.4.1	Temperature Cycling 温度循环	Mate connectors and subject to the following conditions for 5 cycles. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 10-15 mins, after which the specified measurements shall be performed. 5 cycles of : a) $-55 \pm 3 \text{ }^{\circ}\text{C}$ 10-15 min b) $+85 \pm 3 \text{ }^{\circ}\text{C}$ 10-15 min -55±3℃,30 分钟放置转换时间 10-15 分钟 85±3℃,30 分钟放置转换时间 10-15 分钟 循环次数: 5 次	Contact Resistance 接触阻抗	40 milliohms MAX $\leq 40 \text{ m}\Omega$
			Appearance 外观	No Damage on function 无损伤
5.4.2	Heat Resistance 耐热性	Mate connectors and expose to $85 \pm 2 \text{ }^{\circ}\text{C}$ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. 连接连接器并暴露于 $85 \pm 2^{\circ}\text{C}$, 96 小时。在完成暴露期、试样应在环境室安装空调条件为 1 ~ 2 小时, 之后应执行规定的测量。	Contact Resistance 接触阻抗	40 milliohms MAX $\leq 40 \text{ m}\Omega$
			Appearance 外观	No Damage on function 无损伤
5.4.3	Cold Resistance 耐寒性	Mate connectors and expose to $-25 \pm 2 \text{ }^{\circ}\text{C}$ for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. 连接连接器并暴露于 $-25 \pm 2^{\circ}\text{C}$ 96 小时。在暴露期结束后, 应将试样置于室温条件下 1 至 2 小时, 之后应进行规定的测量	Contact Resistance 接触阻抗	40 milliohms MAX $\leq 40 \text{ m}\Omega$
			Appearance 外观	No Damage on function 无损伤
5.4.4	Humidity 恒温恒湿	Mate connectors and expose to $40 \text{ }^{\circ}\text{C}$, relative humidity 90-95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 to 2 hours, after which the specified measurements shall be performed. 配合连接器并暴露于 40°C , 相对湿度 90-95%, 持续 96 小时。在暴露期结束后, 试验样品应经过调理在室温条件下为 1 至 2 小时, 之后指定应进行测量。	Contact Resistance 接触阻抗	40 milliohms MAX $\leq 40 \text{ m}\Omega$
			Appearance 外观	No Damage on function 无损伤

PRODUCT SPECIFICATION

5.5 ENVIRONMENTAL PERFORMANCE CONTINUED 环境测试

ITEM 项目	DESCRIPTION 描述	TEST CONDITION 测试方式	REQUIREMENT 要求	
5.5.1	Salt Spray 盐雾测试	Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water, after which the specified measurements shall be performed. NaCl solution Concentration : 5±1 % Spray time: 8 ± 2 hours Ambient temperature: 35 ± 2 °C 连接连接器并暴露于盐雾条件。在完成曝盐期沉积物应用温和的方法除去洗或浸在流动的水，然后规定的尺寸应为执行。氯化钠溶液浓度:5±1%喷涂时间:8±2 小时 环境温度:35±2°C	Contact Resistance 接触阻抗	40 milliohms MAX ≤40 mΩ
			Appearance 外观	No Damage on function 无损伤
5.5.2	Solderability 耐焊性	Dip terminal or pin into flux, and immerse the area up to 0.2 mm from the bottom of the housing into solder molten at 245 ± 5 °C for 5 ± 0.5 sec. 将端子或针浸入助焊剂中并浸泡该区域从底部向上至 0.2 毫米，外壳在 245±5° C 下熔化 5±0.5 秒。	Solder Wetting 上锡面	95% of immersed area must show no voids, pin holes. 上锡性 95%以上

Part Number 品号			Rev 版本	Date 日期	Page 页码
			A	2020/9/12	
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)				
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作	Jason

PRODUCT SPECIFICATION

5.6 ENVIRONMENTAL PERFORMANCE CONTINUED 环境

ITEM 项目	DESCRIPTION 描述	TEST CONDITION 测试方式	REQUIREMENT 要求	
5.6.1	Resistance to Soldering Heat 回流焊	(Reflow by IR Reflow Machine) Using the reflow profile condition below section 6, the product was reflowed one times. 使用下面的回流配置条件第 6 节，产品回流一次了。 (Reflow by Manual Soldering iron) Using a soldering iron (350 ± 5 °C for 5 seconds MAX.) heat up the area 0.2 mm from the tip of the solder tails and fitting nails. 使用烙铁(350±5° C 为 5 加热 0.2 毫米的区域从焊锡尾和连接件的尖端。	Contact Resistance	40 milliohms MAX.
			Appearance 外观	No Damage 无损伤
			Appearance 外观	No Damage 无损伤

Part Number 品号			Rev 版本	Date 日期	Page 页码
			A	2020/9/12	
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)				
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作	Jason

PRODUCT SPECIFICATION

6.0 SOLDER INFORMATION 焊接说明

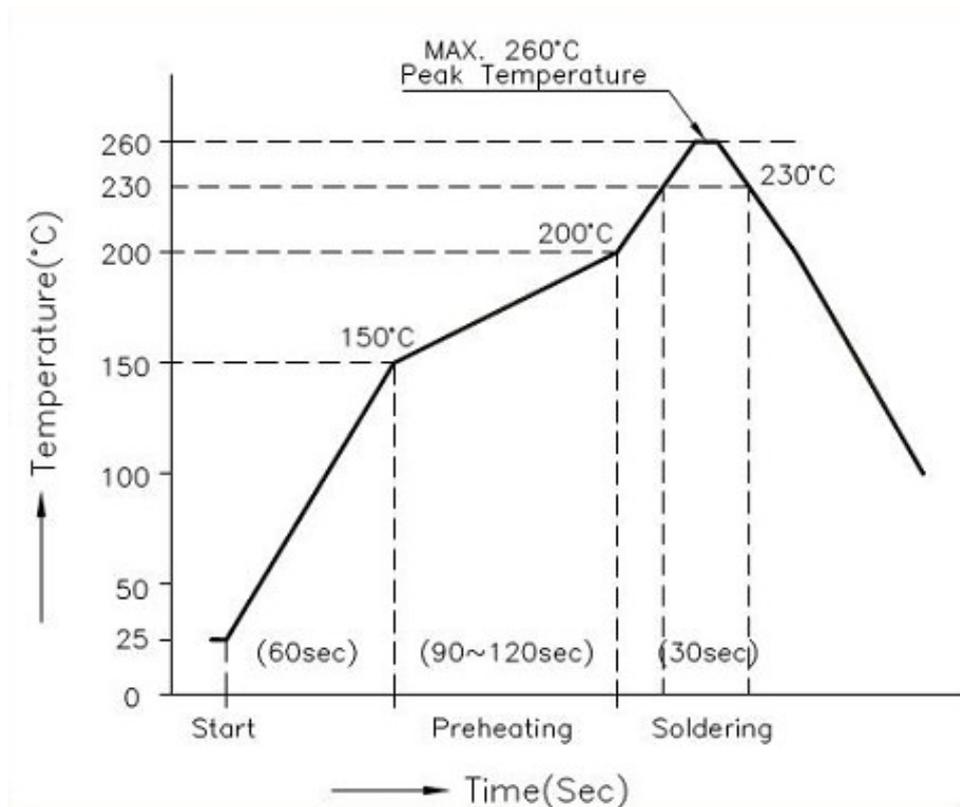
These specifications establish standard solderability test methods used to evaluate a products ability to accept molten solder. Solder Process Temperatures and Reflow Solder Profiles will vary based on application, equipment, solder paste, PCB thickness, etc.

这些规范建立了标准的可焊性试验方法，用于评估产品接受熔融焊料的能力。焊锡过程温度和回流焊焊料形状将根据应用、设备、锡膏、PCB 厚度等而变化。

6.1 SOLDER PROCESS TEMPERATURES 焊接温度

Reflow Solder Temperature: 260 °C Maximum

6.2 REFLOW SOLDERING PROFILE 回流曲线



Part Number 品号	Rev 版本		Date 日期	Page 页码	
	A		2020/9/12		
TITLE 标题	WIRE TO BOARD PITCH:1.00MM SMT (间距 1.0 线对板)				
REVISED BY 核准	XIAO	CHECKED BY 审核	ALEX	PROVED BY 制作	Jason