

<b>Product Specification(产品规格书)</b>	<b>Issued By: Engineering Dept.</b>	
<b>Subject (主题):</b> 2.0mm Pitch KR2004 Series Wire To Wire Connector Specification	<b>Date Issued</b>	2022/2/26
	<b>Date Revised</b>	2022/2/26
<b>Document Number:</b> PS-KR2004-02	<b>Revised /Edition</b>	A1

### 1.0 适用范围 (Scope)

此种规格包括2.00mm Pitch KR2004 Series 连接器规格说明.

This Specification Covers the 2.00mm Pitch KR2004 Series Connector Specification.

### 2.0 规格与料号 (Spec and Part number)

规格内容 <b>Specification</b>	产品料号 <b>Production No.</b>	产品图示 <b>Picture of Product</b>
胶壳/Housing	H2004M1**0101A H2004F1**0102A	
端子/Terminal	T2004FPT01**A T2004MPT0101A	
针座/Wafer	None	

### 3.0 材质与表面处理 (Disposal of Material and surface)

规格内容 <b>Specification</b>	材 质 <b>Materials</b>	表面处理 <b>Disposal of Surface</b>		
胶壳/Housing	PA66	UL94 V-0 or 2		
端子/Terminal	Phosphor bronze	Tin Plated Over Nickel		
针座/ Wafer	SMT Type	主体 Base	N/A	N/A
		导体 Contact	N/A	N/A
		固定片 Solder tab	N/A	N/A
	DIP Type	主体 Base	N/A	N/A
		导体 Contact	N/A	N/A
		固定片 Solder tab	N/A	N/A

(以上参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

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#### 4.0 额定等级 (Ratings and applicable wires)

项 目 Item	规 格 Standard	
额定电压Rated Voltage (Max.)	250V	AC/DC
额定电流Rated Current (Max.)	2A(22AWG)	
使用温度范围Ambient temperature Range	-40°C ~ +105°C	
适用线径Applicable wire insulation O.D	AWG 22# ~ 28# Insulation O.D. 1.2 to 1.6mm	

#### 5.0 电气性能 (Electrical Performance)

项 目 Item	条 件 Test Condition	规 格 Requirement
5.1	接触阻抗 Contact Resistance 公母配合,开放电压20mV最大,电流100mA最大检测连接器A~B区. Mate connectors, measure by dry circuit, 20mV MAX, 100mA MAX. (Based upon EIA-364-23C)	20 milliohms Max.
5.2	绝缘阻抗 Insulation Resistance 公母配合,对相邻两接触导体,于1分钟内施加500V的直流电,并量测其间绝缘阻抗. Mate connectors, apply 500V DC for 1 minute between adjacent contacts to measure the insulation resistance. (Based upon EIA-364-21B)	1000 Megohms Min.
5.3	耐电压 Dielectric Strength 公母配合,在相邻端子或端子与接地端之间,使用1000V的交流电1分钟,检测连接器. Mate connectors, apply 1000V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A)	无损毁或出现电火花 No Breakdown and Flashover

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## 6.0 机械性能 (Mechanical Performance)

	项 目 Item	条 件 Test Condition	规 格 Requirement																																																
6.1	耐久性 Durability	以每分钟25.4±3mm的速率插入和拔出。 (不包含卡榫结合力) Insert and withdraw connectors at the speed rate of 25.4±3mm/minute. (Excluding plastic detents) (Based upon EIA-364-13D)	参照第8.0项 Refer to paragraph 8.0																																																
6.2	端子插入力 Terminal Insertion Force	铆线后之端子插入胶壳。 Insert the crimped terminal into the housing.	1.0 kgf (9.8 N) Max.																																																
6.3	端子保持力 Terminal/ Housing Retention Force	以每分钟25.4±3mm的速率,将端子从Housing内轴向拔出的力量。 Apply axial pull out force at the speed rate of 25.4±3mm/minute on the terminal assembled in the housing.	1.0 kgf (9.8 N) Min.																																																
6.4	端子压接 Terminal Crimping Specification	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 15%;">Wire Size</th> <th style="width: 10%;">22 AWG</th> <th style="width: 10%;">24 AWG</th> <th style="width: 10%;">26 AWG</th> <th style="width: 10%;">28 AWG</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">①</td> <td>Crimp width</td> <td colspan="4" style="text-align: center;">1.30±0.10</td> </tr> <tr> <td></td> <td>Crimp height</td> <td style="text-align: center;">0.85±0.05</td> <td style="text-align: center;">0.80±0.05</td> <td style="text-align: center;">0.75±0.05</td> <td style="text-align: center;">0.70±0.05</td> </tr> <tr> <td style="text-align: center;">②</td> <td>Crimp width</td> <td colspan="4" style="text-align: center;">1.60 Max.</td> </tr> <tr> <td></td> <td>Crimp height</td> <td style="text-align: center;">1.70±0.05</td> <td style="text-align: center;">1.55±0.05</td> <td style="text-align: center;">1.40±0.05</td> <td style="text-align: center;">1.30±0.05</td> </tr> <tr> <td></td> <td>Crimp strength (kgf)</td> <td style="text-align: center;">4.54 Min.</td> <td style="text-align: center;">3.63 Min.</td> <td style="text-align: center;">2.27 Min.</td> <td style="text-align: center;">1.36 Min.</td> </tr> <tr> <td></td> <td>Stripping (mm)</td> <td colspan="4" style="text-align: center;">1.3~1.9</td> </tr> <tr> <td></td> <td colspan="5">① Conductor(mm) ② Insulation(mm)</td> </tr> </tbody> </table>		Wire Size	22 AWG	24 AWG	26 AWG	28 AWG	①	Crimp width	1.30±0.10					Crimp height	0.85±0.05	0.80±0.05	0.75±0.05	0.70±0.05	②	Crimp width	1.60 Max.					Crimp height	1.70±0.05	1.55±0.05	1.40±0.05	1.30±0.05		Crimp strength (kgf)	4.54 Min.	3.63 Min.	2.27 Min.	1.36 Min.		Stripping (mm)	1.3~1.9					① Conductor(mm) ② Insulation(mm)					
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**7.0 环境性能及其它 (Environmental Performance and Others)**

项 目 Item		条 件 Test Condition	规 格 Requirement	
7.1	耐久性 Durability	以每分钟不超过10次的速率,将公母插拔30次. When mated up to 30 cycles repeatedly by the rate of 10 cycles per minute. (Based upon EIA-364-09C)	接触阻抗 Contact Resistance	40 milliohms Max.
7.2	温升测试 Temperature Rise	公母对插后,在通过额定电流下,所测定的温度. Carrying rated current load. (Based upon EIA-364-70B)	温升测试 Temperature Rise	30°C Max.
7.3	耐振动性 Vibration	振幅: 1.5mm P-P 时间: 10~55~10 HZ in 1 minute 持续时间: 每轴向 2 小时 Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials. (Based upon EIA-364-28B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.
7.4	耐冲击性 Shock	在 X.Y.Z 上 6 个方向上,以 490m/s <sup>2</sup> (50g) 冲击下各 3 回. 490m/s <sup>2</sup> {50g}, 3strokes in each X.Y.Z. axes. (Based upon EIA-364-27B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.
7.5	耐热性 Heat Resistance	105±2°C,96 hours. (Based upon EIA-364-17B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
7.6	耐寒性 Cold Resistance	-40±2°C,96 hours. (Based upon EIA-364-59)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.

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项 目 Item		条 件 Test Condition	规 格 Requirement	
7.7	耐湿性 Humidity	温度: 40±2℃ 湿度: 90~95%(RH) 持续时间: 96 hours Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
			耐电压 Dielectric Strength	Must meet 5.3
			绝缘阻抗 Insulation Resistance	100 Megohms Min.
7.8	热冲击 Thermal shock	以-40℃持续30分钟经室温5分钟,而后以105℃持续30分钟再经室温5分钟为一个循环,共循环5次. One Cycle Consists Of: -40℃ for 30 minutes. → Room Temp. 5 minutes, +105℃ for 30minutes. → Room Temp. 5 minutes Total Cycles: 5 Cycles. (Based upon EIA-364-32B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.
7.9	盐水喷雾 Salt Spray	在温度35±2℃,盐水浓度5±1%下,盐水喷雾8小时. 8 hours exposure to a salt spray from the 5±1% solution at 35±2℃. (Based upon EIA-364-26B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	40 milliohms Max.

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**8.0 综合插入力及拔出力 (Insertion/withdrawal force)**  
**<Unit: kgf>**

No. of Circuits PIN数	At Initial 首次插入与拔出力 (初始值)		At 30 <sup>th</sup> 30次插入 与拔出后	No. of Circuits PIN数	At Initial 首次插入与拔出力 (初始值)		At 30 <sup>th</sup> 30次插入与 拔出后
	I.F.(MAX.) 插入力	R.F.(MIN.) 拔出力	R.F.(MIN.) 拔出力		I.F.(MAX.) 插入力	R.F.(MIN.) 拔出力	R.F.(MIN.) 拔出力
2	1.20	0.40	0.25	10	6.00	2.00	1.45
3	1.80	0.60	0.40	11	6.60	2.20	1.60
4	2.40	0.80	0.55	12	7.20	2.40	1.75
5	3.00	1.00	0.70	13	7.80	2.60	1.90
6	3.60	1.20	0.85	14	8.40	2.80	2.05
7	4.20	1.40	1.00	15	9.00	3.00	2.20
8	4.80	1.60	1.15	16	9.60	3.20	2.35
9	5.40	1.80	1.30				

**9.0 备注 (Remark)**

有关规格书内容经变更或改版，如未能及时发布与通知，烦请联系我司业务人员提供产品最新资讯

Any change or revision for the product specification will not be announced in advance.

Please contact our sales representative for the latest information.

Written: Arvin

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Approved: Min xinhao