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# 产品规格书 PRODUCT SPECIFICATION

This specification is referred to the 2.00mm series wire to board connector

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#### 【1.适用范围 Scope】

此种规格包括 2.00mm Pitch 2010 Series 连接器规格说明.

This Specification Covers the 2.00mm Pitch 2010 Series Connector Specification.

### 【2.规格与料号 Spec and Part number】

规格内容 Specification	产品料号 Production No.	产品图示 Picture of Product
端子/Terminal	T2010PS-2	NONE
胶壳/Housing	胶壳/Housing P2010-XX-N0	
针座/Wafer	M2010V-XX-XXX M2010R-XX-XXX	NONE

【3.材质与表面处理 Disposal of Material and surface】

规格内容		材 质	表面处理
Specific	ation	Materials	Disposal of Surface
端子/Terminal		磷铜/Phosphor Bronze	2016T-PSN: Tin Plated: Over 70μ″.Nickel: Over 30μ″. 2016T-PSNB: Tin Plated: Over 30μ″.Nickel: Over 10μ″.
胶壳/Housing		PA66	UL 94V-0
针嵌Mafar	Base	PA66	UL 94V-0
针座/Wafer	PIN	黄铜/Brass	Over Tin 70μ" Plated ; Over 30μ" Nickel

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

## 【4. 额定等级 Ratings and applicable wires】

项 目【Item】	规 格【Standard】		
额定电压 Rated Voltage (Max.)	100V	[40/D0]	
额定电流 Rated Current (Max.)	2A	[AC/DC]	
使用温度范围 Ambient temperature Range	-25	~+85	
适用线径 Applicable wire insulation O.D AWG 24#~30# Insulation O.D. 1.50mm(M			

【 \*升温时含端子.Including terminal temperature rise. 】

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#### 【5.性能 PERFORMANCE】

## 5-1. 电气的性能 Electrical Performance.

	规 格		
	(Item)	【Test Condition】	【Requirement】
5-1-1	接触阻抗 Contact Resistance	公母配合,开放电压 20mV 以下,电流 10mA 检测连接器 A~B 区. Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (Based upon EIA-364-06A).	Initial: 10 milliohms Max. After Test: 20 milliohms Max.
5-1-2	绝缘阻抗 Insulation Resistance	公母配合,在相邻端子,端子与地片之间,使用500V的直流电,检测连接器. Mate connectors, apply 500V DC between adjacent terminal or ground. (Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)	1000 Megohms Min.
5-1-3	耐电压 Dielectric Strength	公母配合,在相邻端子,端子与地片之间,使用800V的交流电1分锺,检测连接器. Mate connectors, apply 800V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A / MIL-STD-202 Method 301)	不出现中断等情况 No Breakdown and Flashover
5-1-4	Contact	铆线后之端子,开放电压 20mV 以下,电流 10mA 检测连接器. Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.	10 milliohms Max.

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### 5-2. 机械的性能 Mechanical Performance

	项 目 条 件 规 格						
	【Item】	Test Condition	【Requirement】				
5-2-1	插拔力 Insertion & Retention Force	以每分锺 25.4±3mm 的速率插入和拔出. Insert and withdraw Connectors at the speed rate of 25.4±3mm/minute.	•				
5-2-2	端子保持力 Terminal/ Housing Retention Force	以每分 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.	14.7N {1.5kgf} Min.				
5-2-3	端子插入力 Terminal Insertion Force	铆线后之端子插入 Housing 所需最大力量. Insert the crimped terminal into the housing.	9.8N {1.0kgf} Max.				
5-2-4	Pin 针保持力 Pin Retention Force	以每分 25.4±3mm 的速率,将 PIN 针从Wafer 内轴向拔出的力量. Apply axial push force at the speed rate of 25.4±3mm/minute.  PUSH  PUSH	9.8N {1.0kgf} min.				

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	_项 目_	_ 条   件		-	桁	•	
	【Item】	【Test Condition】	【Re	quir	eme	nt ]	
		固定铆线后的端子,使电线与端子分离时所	AWG#	#24	#26	#28	#30
5-2-5	사내 그 그 수 그 수		Spec.kgf. Min.	3.0	2.0	1.5	0.8
	connections)	Control of the Contro	Note> As for unspecified wir sizes in this specification define values with clients			on	

## <u>5-3. 环境性能及其它 Environmental Performance and Others.</u>

		条件	规	格	
【Item】		【Test Condition】	【Requirement】		
5-3-1	重复插拔 Repeated Insertion/ Withdrawal	以每分锺不超过 10 次的速率,将公母插拔 50 次. When mated up to 50 cycles repeatedly by the rate of 10 cycles per minute.	接触阻抗 Contact Resistance	20 milliohms Max.	
5-3-2	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. (UL 1977)	温升测试 Temperature rise	30 Max.	
	耐振动性 Vibration		外观 Appearance	无异状 No Damage	
5-3-3			接触阻抗 Contact Resistance	20 milliohms Max.	
		(Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A)	瞬断 Discontinuity	1 micro- second Max.	
		+ VV7   C A + +	外观	无异状	
	耐冲击性 Shock	在 X.Y.Z 上 6 个方向上,以 490m/s²(50g 的	Appearance	No Damage	
5-3-4		力量)冲击下各 3 回.490m/s <sup>2</sup> {50G}, 3	接触阻抗 Contact	20 milliohms Max.	
		strokes in each X.Y.Z. axes.	Resistance		
		(Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond.A)	瞬断	1 micro-	
		Mediod 213B Colld.A)	Discontinuity	second Max.	

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		耐热性	85±2 ,96 hours.	外观 Appearance	无异状 No Damage
5-3-5		Heat Resistance	(Based upon MIL-STD-202 Method 108A Cond.A)	接触阻抗 Contact Resistance	20 milliohms Max.
				外观 Appearance	无异状 No Damage
5-3-6 C		耐寒性 Cold Resistance	-25±5 ,96 hours. ( Based upon EIA-364-105)	接触阻抗 Contact Resistance	20 milliohms Max.
5-3-7		温度: 40±2 湿度: 90~95%(RH)	外观 Appearance 接触阻抗	无异状 No Damage	
	F 2 7	耐湿性	持续时间: 96 hours Temperature: 40±2	Contact Resistance	20 milliohms Max.
	Humidity	Relative Humidity: 90~95% Duration: 96 hours	耐电压 Dielectric Strength	Must meet 5-1-3	
		(Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	绝缘阻抗 Insulation Resistance	500 Megohms Min.	
5-3-8		温度变化 Temperature Cycling	从-25 持续 30 分锺升至+85 持续 30 分锺, 循环 5 次. 5 cycles of: a) -25 30 minutes. b) +85 30 minutes. (Based upon EIA-364-32B)	外观 Appearance	无异状 No Damage
	5-3-8			接触阻抗 Contact Resistance	20 milliohms Max.
5-3-9			在温度 35±2 ,盐水浓度 5±1%下,盐水喷雾 24±1 小时. 24±1 hours exposure to a salt spray from	外观 Appearance	无异状 No Damage
	盐水喷雾 Salt Spray	the 5±1% solution at 35±2 . (Based upon EIA-364-26A/MIL-STD-202 Method 101D Cond.B). 此项只适用先冲后镀产品:2016T-PSN 先镀后冲产品不适用	接触阻抗 Contact Resistance	20 milliohms Max.	
	5-3-10	焊接时间: 3±0.5 秒. 焊锡附着性 焊接温度: 245±5 .		Solder Wetting	浸渍面积需 95%以上 95% of immersed area must show no voids, pin holes.

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	项 目	条 件	规	格
	【Item】	【Test Condition】	【Require	ement】
5-3-11	焊锡耐热性 Solder-	焊接时间: 3~5 秒. 焊接温度: 250+5/-5 . Soldering time:3~5 sec solder. Temperature:250+5/-5 . (Based upon EIA-364-56A)	外观 Appearance	无异状 No Damage

### 【6.综合插入力及拔出力 INSERTION/WITHDRAWAL FORCE】 < Connector mating force >

PIN 数 No. of CKT	初次插入力(最大值) First Insertion (kgf Max.)	30 次拨出力(最小值) 30 <sup>th</sup> Withdrawal (kgf Min.)	PIN 数 No. of CKT	初次插入力(最大值) First Insertion (kgf Max.)	30 次拨出力(最小值) 30 <sup>th</sup> Withdrawal (kgf Min.)
Single	1.00	0.10	09	6.00	1.20
02	2.50	0.60	10	6.50	1.40
03	3.00	0.60	11	7.00	1.40
04	3.50	0.80	12	7.50	1.60
05	4.00	0.80	13	8.00	1.80
06	4.50	1.00	14	8.00	1.80
07	5.00	1.00	15	8.00	1.80
08	5.50	1.20	16	9.50	2.20

注:以上插拔次数为 30 次 Note: Insertion and Withdrawal for 30Cycles

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