



<b>Product Specification [产品规格书]:</b>	Document No	PS-A2008-01
<b>Subject [主题]:</b>	Date Issued	2017/06/21
2.00mm Pitch A2008 Series Connector Specification	Date Revised	2020/03/14
	Version	A

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 2008 Series 连接器规格说明.

This Specification Covers the 2.00mm Pitch 2008 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	A2008T-XXX	
胶壳/Housing	A2008H-XXX	
针座/Wafer	/	

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

规格内容 Specification	材质 Materials	表面处理 Disposal of Surface
端子/Terminal	磷铜(C5191)/Phosphor Bronze	Nickel Plated: 50u" Min Bright Tin Plated: 100u" Min
胶壳/Housing	PA66	UL 94V-0
针座/Wafer	Base	
	PIN	
	Solder tab	

(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】**

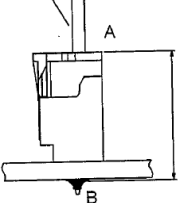
项目【Item】	规格【Standard】		
4-1. 额定电压 Rated Voltage (Max.)	250V	[AC/DC]	
4-2. 额定电流 Rated Current (Max.)	2A		
4-3. 使用温度范围 Ambient temperature Range	-25℃~+85℃		
4-4. 适用线径 Applicable wire insulation AWG(mm <sup>2</sup> )	A2008T-XXX	AWG#24~30	绝缘Ø O.D : 1.60mm(Max.)

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

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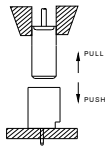
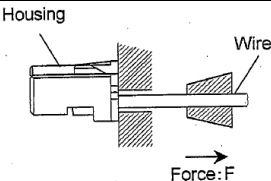
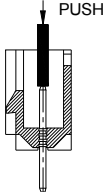
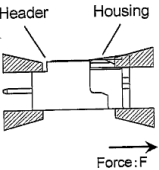
**【5.性能 PERFORMANCE】**

**5-1. 电气的性能 Electrical Performance.**

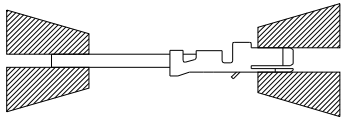
项 目 【Item】	条 件 【Test Condition】	规 格 【Requirement】
5-1-1 接触阻抗 Contact Resistance	公母配合,开放电压 20mV 以下,电流 10mA 检测连接器 A~B 区. Mate connectors, measure by dry circuit, 20mV MAX, 10mA. (Based upon EIA-364-06A). 	Initial: 10 milliohms Max. After Test: 20 milliohms Max.
5-1-2 绝缘阻抗 Insulation Resistance	公母配合,在相邻端子,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 500V 的交流电 1 分钟,检测连接器. Mate connectors, apply 500V AC for 1 minute between adjacent terminal or ground. (Based upon EIA-364-20A / MIL-STD-202 Method 301)	外观无损伤, 无打火花 No Breakdown and Flashover
5-1-4 铆线后端子接触阻抗 Contact resistance on crimped portion	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 【Item】	条件 【Test Condition】	规格 【Requirement】
5-2-1 插拔力 Insertion & Withdraw Force	以每分钟 $50 \pm 3\text{mm}$ 的速率插入和拔出。 Insert and withdraw Connectors at the speed rate of $50 \pm 3\text{mm/minute}$ . 	参照第 6 项 Refer to paragraph 6
5-2-2 端子保持力 Terminal/ Housing Retention Force	以每分 $50 \pm 3\text{mm}$ 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 $50 \pm 3\text{mm/minute}$ on the terminal assembled in the housing. 	9.8N {1.0kgf} 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 $100\text{mm}$ 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 $100\text{mm/minute}$ . 	9.8N {1.0kgf} min.
5-2-5 Lock 保持力 Lock Retention Force	将 Housing 与 Wafer 匹配后, 将 Housing 从 Wafer 内轴向拔出的力量, 看其卡扣的承受力量 A housing and a header shall be mated, Pulling load shall be applied them, the load to make them come off each other shall be measured 	29.4N {3.0kgf} min.

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项目 【Item】	条件 【Test Condition】	规格 【Requirement】				
5-2-6 Crimped contact	固定铆线后的端子，使电线与端子分离时所需的最小力量。 Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).	AWG 线号	AWG# 24	AWG# 26	AWG# 28	AWG# 30
		Spec.kgf. Min.	3.0	2.0	1.0	0.7
		Note> As for unspecified wire sizes in this specification define values with customer.				

**5-3. 环境性能及其它 Environmental Performance and Others**

项目 【Item】	条件 【Test Condition】	规格 【Requirement】	
5-3-1 重复插拔 Repeated Insertion/ Withdrawal	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.	接触阻抗 Contact Resistance	20 milliohms Max.
5-3-2 温升测试 Temperature Rise	公母连接器配合后，加载额定电流直到温度上升到稳定状态，然后再测量温升（EIA364-70,Method 1） Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise. (EIA364-70,Method 1)	温升测试 Temperature rise	30°C Max.
5-3-3 振动测试 Vibration test	振幅: 1.5mm P-P 时间: 20~200~20 Hz in 3minute 持续时间: 每轴向 3 小时 加速度: 44m/S <sup>2</sup> 开放电压: 20mV 以下 开放电流: 10mA 以下 Amplitude: 1.5mm P-P Sweep time: 20~200~20 Hz in 3 minute Duration: 3 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A)	外观 Appearance	无异状 No Damage
		接触阻抗 Contact Resistance	20 milliohms Max.
		瞬断 Discontinuity	1 micro-second Max.
		电压降落 Voltage Drop	20mV/A Max
5-3-4 冲击测试 Shock test	在 X.Y.Z 上 6 个方向上,以 981m/s <sup>2</sup> (100G 的力量)冲击下各 3 回. 作用时间: 6ms 981m/s <sup>2</sup> {100G}, 3 strokes in each X.Y.Z. axes. Operation time:6ms (Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond. A)	外观 Appearance	无异状 No Damage
		接触阻抗 Contact Resistance	20 milliohms Max.
		瞬断 Discontinuity	1 micro-second Max.



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项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】	
5-3-5	耐热性 Heat Resistance	105±2°C, 96 hours. (Based upon MIL-STD-202 Method 108A Cond.A)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 milliohms Max.
5-3-6	耐寒性 Cold Resistance	-40±3°C, 96 hours. (Based upon EIA-364-105)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 milliohms Max.
5-3-7	耐湿性 Humidity	温度: 60±2°C 湿度: 90~95%(RH) 持续时间: 96 hours Temperature: 60±2°C Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 milliohms Max.
			耐电压 Dielectric Strength	Must meet 5-1-3
			绝缘阻抗 Insulation Resistance	100 Megohms Min.
5-3-8	温度变化 Temperature Cycling	从-40°C持续 30 分钟升至+105°C持续 30 分钟,循环 5 次. 5 cycles of: a) -40°C 30 minutes. b) +105°C 30 minutes. (Based upon EIA-364-32B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 milliohms Max.
5-3-9	盐水喷雾 Salt Spray	在温度 35±2°C, 盐水浓度 5±1%下, 盐水喷雾 48±4 小时. 48±4 hours exposure to a salt spray from the 5±1% solution at 35±2°C. (Based upon EIA-364-26A/MIL-STD-202 Method 101D Cond.B).	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	20 milliohms Max.
5-3-10	焊锡附着性 Solder-ability	焊接时间: 3~5 秒. 焊接温度: 245±5°C. Soldering time: 3~5sec solder. Temperature: 245±5°C.	Solder Wetting	浸渍面积需 95% 以上 95% of immersed area must show no voids, pin holes.
WRITTEN BY:LTS		APPROVED BY:YJY	Sheet: 6 of 7	



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5-3-11	焊锡耐热性 Resistance to Soldering Heat	焊接时间: 5~10 秒. 焊接温度: 255+5/-5°C. Soldering time: 5~10 sec solder. Temperature: 255+5/-5°C. (Based upon EIA-364-56A)	外观 Appearance	无异状 No Damage
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**[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 次拔出力(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 次拔出力(最小值) 30 <sup>th</sup> Withdrawal (kgf Min.)
Single	/	/	09	9.2	0.55
02	3.6	0.10	10	10.0	0.60
03	4.4	0.20	11	10.8	0.65
04	5.2	0.30	12	11.6	0.70
05	6.0	0.35	13	12.4	0.75
06	6.8	0.40	14	13.2	0.80
07	7.6	0.45	15	14.0	0.85
08	8.4	0.50			

注: 以上插拔次数为 30 次

Note: Insertion and Withdrawal for 30Cycles