

Product Specification [产品规格书]:	Document No	PS-HRS-6501-01
Subject [主题]:	Date Issued	2017/12/13
2.54mm Pitch HRS-6501 Series Connector Specification	Date Revised	2020/03/13
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This specification is referred to the 2.54mm series Female Header Connector

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【1.适用范围 Scope】

此种规格包括 2.54mm Pitch HRS-6501 Series 排母连接器规格说明.

This Specification Covers the 2.54mm Pitch HRS-6501 Series Female Header Connector Specification.

【2.规格与料号 Spec and Part number】

规格内容 Specification	产品料号 Production No.
排母/Female Header	HRS-6501FVS-XX-XXXXX HRS-6501FRS-XX-XXXXX HRS-6501FVS-2*XXX-XXXXX HRS-6501FRS-2*XXX-XXXXX
排针/ Pin header	HRS-6501WVS-XX-XXXX-XX HRS-6501WRS-XX-XXXX-XX HRS-6501WVS-2*XX-XXXX-XX HRS-6501WRS-2*XX-XXXX-XX

【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
排母 Female Header	Insulation	High Temperature Plastic	UL 94V-0
	PIN	磷铜/Phosphor Bronze 黄铜/Brass	Gold-Flash、30u"Ni Min
排针 Pin Header	Base	High Temperature Plastic	UL 94V-0
	PIN	黄铜/Brass	Gold-Flash、30u"Ni Min

(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.)	250V	[AC/DC]
额定电流 Rated Current (Max.)	3A	
使用温度范围 Ambient temperature Range	-40℃~+105℃	

【 *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: 20 milliohms Max. After Test: 30 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 800V 的直流电,检测连接器. Mate connectors, apply 800V 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 分钟,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)	外观无损伤, 无打火花 No Breakdown and Flashover

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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 & Retention Force	将 0.64MM Square PIN 以每分钟 25.4±3mm 的速率插入和拔出。 Insert a 0.64MM Square PIN and withdraw Connectors at the speed rate of 25.4±3mm/minute.	Single Contact Insertion Force: 4.9N{0.5kgf} Max Single Contact Withdrawal Force: 0.29N{0.03kgf} Kgf Min	
5-2-2	Pin 针保持力 Pin Retention Force	以每分钟 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.	1.0Kgf Min	
5-2-3	端子保持力 Contact Retention Force	以每分钟 25.4±3mm 的速率,将端子从胶壳内轴向拔出的力量。 Apply axial push force at the speed rate of 25.4±3mm/minute.	4.90N {0.5kgf} min.	

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	30 milliohms Max.

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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.
WRITTEN BY: <u>Alan qin</u> APPROVED BY: <u>Robing</u> Sheet: 5 of 8				

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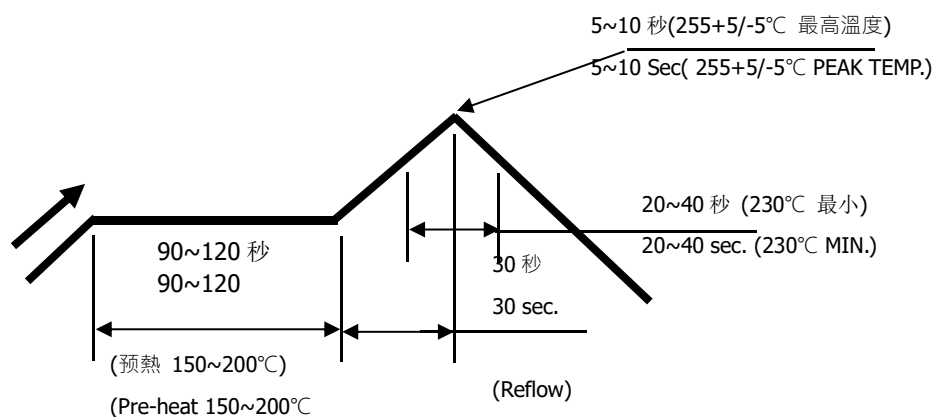
项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】	
5-3-3	振动测试 Vibration test	振幅: 1.5mm P-P 时间: 10~55~10 HZ in 1 minute 持续时间: 每轴向 2 小时 Amplitude: 1.5mm P-P Sweep time: 10~55~10 HZ in 1 minute Duration: 2 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	30 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.
5-3-4	冲击测试 Shock test	在 X.Y.Z 上 6 个方向上,以 490m/s ² (50g 的力量)冲击下各 3 回.490m/s ² {50G}, 3 strokes in each X.Y.Z. axes. (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	30 milliohms Max.
			瞬断 Discontinuity	1 micro-second Max.
5-3-5	耐热性 Heat Resistance	105±2℃,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	30 milliohms Max.
5-3-6	耐寒性 Cold Resistance	-40±5℃,96 hours. (Based upon EIA-364-105)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	30 milliohms Max.
5-3-7	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-364-31A/MIL-STD-202 Method 103B Cond.B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	30 milliohms Max.
			耐电压 Dielectric Strength	Must meet 5-1-3
			绝缘阻抗 Insulation Resistance	500 Megohms Min.

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项 目 【Item】		条 件 【Test Condition】	规 格 【Requirement】	
5-3-8	温度变化 Temperature Cycling	从-40℃持续 30 分锺升至+105℃持续 30 分锺,循环 5 次. 5 cycles of: a) -40℃ 30 minutes. b) +105℃ 30 minutes. (Based upon EIA-364-32B)	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	30 milliohms Max.
5-3-9	盐水喷雾 Salt Spray	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 the 5±1% solution at 35±2℃. (Based upon EIA-364-26B/MIL-STD-202 Method 101D Cond.B).	外观 Appearance	无异状 No Damage
			接触阻抗 Contact Resistance	30 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℃. Soldering Time: 3~5second. Solder Temperature: 245±5℃. (Based upon EIA-364-52)	Solder Wetting	浸渍面积需 95% 以上 95% of immersed area must show no voids, pin holes.
5-3-11	焊锡耐热性 Solder- Resistance	焊接时间: 5~10 秒. 焊接温度: 255+5/-5℃. Soldering time:5~10 sec solder. Temperature:255+5/-5℃. (Based upon EIA-364-56A)	外观 Appearance	无异状 No Damage

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【6. SMT 回流条件 SMT REFLOW CONDITION】



温度条件曲线图/ 基板上温度

TEMPERATURE CONDITION GRAPH/ (TEMPERATURE ON BOARD PATTERN SIDE)

注记: 由于 P.C 板等焊接装置改变条件,所以请预先用自己的装置检查回流焊的条件。

Notes: Please check the reflow soldering condition by your own devices beforehand. Because the condition changes by the soldering devices, P.C. boards, and so on.