



<b>Product Specification</b> [产品规格书]:	Document No	PS-6503-01
<b>Subject</b> [主题]: 2.54mm Pitch 6503 Series Connector Specification	Date Issued	2017/08/25
	Date Revised	2020/03/10
	Version	B

This specification is referred to the 2.54mm series Female Hearer Connector

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**【1.适用范围 Scope】**

此种规格包括 2.54mm Pitch 6503 Series 排针连接器规格说明.

This Specification Covers the 2.54mm Pitch 6503 Series Pin Header 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
排针 / Pin header	6503WR-2*05Y-4TSWBKR	

**【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
排针 Pin Header	Base	PA4T	UL 94V-0
	PIN	黄铜 (C2680) /Brass	Nickel Plated: 32~52u" (0.8-1.3μm) Tin Plated: 16~60u" (0.4-1.5μm)

(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.)	650 mA	
使用温度范围 Ambient temperature Range	-40°C ~ +80°C	

【 \*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 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 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 / MIL-STD-202 Method 301)	不出现中断等情况 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	Pin 针保持力 Pin Retention Force	以每分 25.4±3mm 的速率,将 PIN 针从胶壳内轴向上拔出的力量. At the rate of 25.4±3mm per minute, the force to pull the PIN PIN from the inner axis of the rubber shell upward	上排 2.4Kgf Min/PIN 下排 1.0Kgf Min/ PIN	
5.2-2	鱼眼脚插入力 (PCB 板孔) Assembly force into PCB of each pin	以每分 25.4±3mm 的速率,将鱼眼脚插入 PCB 板孔内轴向下的力量. At the rate of 25.4±3mm per minute, insert the fish-eye foot into the inner shaft of PCB board hole downward force	11.0Kgf Max	
5-2-3	鱼眼脚保持力 (PCB 板孔) Push out force from PCB of each pin	以每分 25.4±3mm 的速率,将鱼眼脚从 PCB 板孔内轴向上拔出的力量. At the rate of 25.4±3mm per minute, the force to pull the fish-eye foot from the inner axis of PCB board hole upward.	2.0kgf 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.
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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: 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	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 <sup>2</sup> (50g 的力量)冲击下各 3 回.490m/s <sup>2</sup> {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	80±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	30 milliohms Max.
5-3-6	耐寒性 Cold Resistance	-40±5°C,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°C 湿度: 90~95%(RH) 持续时间: 96 hours Temperature: 40±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	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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5-3-8	温度变化 Temperature Cycling	从-40℃持续 30 分钟升至+80℃持续 30 分钟,循环 5 次. 5 cycles of: a) -40℃ 30 minutes. b) +80℃ 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.