## DONGGUAN HANHAO PRECISION ELECTRONIC CO., LTD

Product Specification [产品规格书]:	ISSUED BY: Engineering Dept	
Subject [主题]:	Date Issued 2012/09/08	
2.50mm Pitch J2505 Series Connector Specific	Date Revised 2013/07/28	

This specification is referred to the 2.50mm series wire to board connector

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### 【1.适用范围 Scope】

此种规格包括 2.50mm Pitch J2505 Series 连接器规格说明.

This Specification Covers the 2.50mm Pitch J2505 Series Connector Specification.

### 【2.规格与料号 Spec and Part number】

规格内容	产品料号	产品图示
Specification	Production No.	Picture of Product
端子/Terminal	J2505T	NONE
胶壳/Housing	J2505H-XX	NONE
针座/Wafer	J2505WRS-XX J2505WS-XX	NONE

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

3.构质与表面处理 Disposal of Material and Surface】					
规格内容		材 质	表面处理		
Specific	ation	Materials	Disposal of Surface		
		磷铜/Phosphor Bronze	先冲后镀 锡 / Tin 70μ″ min 、 镍/Ni: 30μ″ min		
端子/Ter	mınaı	黄铜/ Brass	7511712 77 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
胶壳/Housing		PA66	UL 94V-0		
	Base	PA66	UL 94V-0		
针座/Wafer	PIN	黄铜/Brass	Over Tin 70μ″ Plated ; Over 30μ″ Nickel		
	Solder tab	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.)	250V		
额定电流 Rated Current (Max.) 3A		[AC/DC]	
使用温度范围 Ambient temperature Range	ge -25°C ~+85°C		
适用线径 Applicable wire insulation O.D	AWG 22#~30# Insulation O.D. 1.90mm(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
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1000V的交流电1分锺,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
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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<u> </u>		chanical Performance.	•		
	_项 目	条    件	规	格	
	【Item】	【Test Condition】	【 Requirer	nent ]	
5-2-1	插拔力 Insertion & Withdraw 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.  Header Housing Wire	参照第 6 Refer to para		
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.	19.6N {2.0kç	gf} 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.	14.7N {1.5kg	gf} 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.	19.6N {2.0kg	gf} min.	
18/		ADDDOVED DV O	and Com	Charte 4 - C	
VV	WRITTEN BY: <u>Jova Lau</u> APPROVED BY: <u>Succeed. Sun</u> Sheet: 4 of 8				

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	项 目	条 件		规		格		
	【Item】	【Test Condition】		Req	uire	men	t 】	
		固定铆线后的端子,使电线与端子分离时所	AWG#	#22	#24	#26	#28	#30
5-	端子压看强度 Tensile strength	需的最小力量. Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).	Spec. .kgf. Min.	5.0	3.0	2.0	1.0	0.5
	(Crimped connections)		Note> / sizes defin	in th	nis sp	pecifi	catio	n

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

【Item】		【Test Condition】	Requirement		
•	<u>–</u>		kitcquii		
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°C Max.	
	耐振动性 <b>Vibration</b>	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	
5-3-3			接触阻抗 Contact Resistance	20 milliohms Max.	
			瞬断 Discontinuity	1 micro- second Max.	
		2	外观	无异状	
	耐冲击性 Shock	在 X.Y.Z 上 6 个方向上,以 490m/s <sup>2</sup> (50g 的	Appearance	No Damage	
5-3-4		力量)冲击下各 3 回.490m/s <sup>2</sup> {50G}, 3 strokes in each X.Y.Z. axes.	接触阻抗 Contact Resistance	20 milliohms Max.	
		(Based upon EIA-364-27B/MIL-STD-202		1 micro-	
		Method 213B Cond.A)	Discontinuity	second Max.	

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项目 《Test Condition》 《Requirement》 外观 Appearance No Damage 接触阻抗 Contact Resistance		2.50mm Pitch J2505 Series Connector Specification			Date Revised	2013/07/28	
Figure			项 目	条 件	规	格	
Formula   S5±2°C,96 hours.   Based upon MIL-STD-202 Method 108A   接触阻抗 Contact Resistance   Max.			(Item)	Test Condition	【Require	ement]	
Based upon MIL-STD-202 Method 108A   接触阻抗 Contact Resistance					外观	无异状	
Heat Resistance Cond.A)  Heat Resistance Cond.A)    Family			耐热性	85±2℃,96 hours.	Appearance	No Damage	
F-3-6 No Damage    F-3-6   F-3-6   F-3-6   F-3-6   F-3-6   Cold Resistance   F-3-6   Cold Resistance   F-3-6   Cold Resistance   F-3-7   F-3		5-3-5		(Based upon MIL-STD-202 Method 108A	接触阻抗	20 milliohms	
Fesistance    Appearance   Skm阻抗   Contact   Resistance   Kgm阻抗   Contact   Kgm阻抗   Contact   Contact   Contact   Resistance   Kgmunth   Contact   Resistance   Kgmunth   Kgmunthh   K			ricae resistance	Cond.A)	Contact		
F-3-6							
5-3-6 Cold Resistance Cold Resistance (Based upon EIA-364-105)    Appearance   Based upon EIA-364-105   Based upon EIA-364-31A/MIL-STD-202   Based upon EIA-364-31A/MIL-STD-202   Method 103B Cond.B   Method 103B Cond.B   Method 103B Cond.B   Method 103B Cond.B      Appearance   Appearance   Appearance   Appearance   Appearance   Appearance   Appearance   Max.     Appearance   Appear					外观		
Told Resistance (Based upon EIA-364-105)    Appearance   Appearance			耐寒性	-25+5°C 96 hours		No Damage	
Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)    Contact Resistance		5-3-6		( Based upon EIA-364-105)		20 milliohms	
Besistance 分观 Appearance				,			
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)  Appearance No Damage 接触阻抗 Contact Resistance Max.  Must meet Dielectric Strength 绝缘阻抗 Insulation Resistance Min.  从-25℃持续 30 分锺升至+85℃持续 30 分 外观 无异状	-						
Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)    大字で持续30分锺升至+85℃持续30分 外观 无异状				\			
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)   Must meet   5-1-3   Strength   1							
Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)    Max.   Resistance   Max.   Must meet   Dielectric   Strength   (200 Megohms   Insulation   Resistance   Min.   Min.   M-25℃持续 30 分锺升至+85℃持续 30 分 外观 无异状							
Humidity Relative Humidity: 90~95% Duration: 96 hours (Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)     Must meet Dielectric Strength		<b>5.2.7</b>	耐湿性			Max.	
(Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)  Strength 绝缘阻抗 Insulation Resistance 从-25℃持续 30 分锺升至+85℃持续 30 分 外观 无异状		5-3-/	Humidity			Must meet	
Method 103B Cond.B)  ———————————————————————————————————						5-1-3	
Min.   Min.   Min.   Min.   Min.   Min.   Min.   Min.   M.   Albert   Min.					绝缘阻抗	500 Megohms	
从-25℃持续 30 分锺升至+85℃持续 30 分 外观 无异状				, , , , , , , , , , , , , , , , , , , ,			
	_			リ 25℃ 扶徒 20 公街 4 五 1 95℃ 扶徒 20 公		工戶化	
			担度本化				
5.3.0 Thursday   5 males of   3 25 ° 30 minutes		5-3-8		• ***		No Damage	
Cooling by 185°C 20 minutes 20 milliohms		3 3 0	Cycling	b) +85°C 30 minutes. (Based upon EIA-364-32B)		20 milliohms Max.	
(Paged upon FIA 204 22P)							
Resistance	_			(Subset upon 22 ( 55 ) 525)		工戶化	
外观							
Appearance No Damage					Арреагапсе	No Damage	
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			11 1 1 2				
5-3-9  from the 5±1% solution at 35±2℃. 接触阻抗		5-3-9		, , , ,	接触阻抗		
(Based upon EIA-364-26B/MIL-STD-202) Contact 20 milliohms			Salt Spray	(Based upon EIA-364-26B/MIL-STD-202			
Method 101D Cond.B).  Resistance  Max.						Max.	
此项测试适用于 8821T-XSN 先冲后镀产品				•			
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	项 目 【Item】	条 件 【Test Condition】	规 【Require	格 ement】
5-3-10	焊锡附着性 ) Solder- ability	焊接时间: 3±0.5 秒. 焊接温度: 245±5℃. Soldering Time: 3±0.5second. 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.
5-3-1	焊锡耐热性 1 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

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

10.综合加入7.7次次面为 THOERTON WITHERAWAET OROE 10 CONTINUED TO THE					
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	1.00	0.20	09	6.50	1.20
02	3.00	0.60	10	7.00	1.40
03	3.50	0.80	11	7.50	1.40
04	4.00	0.90	12	8.00	1.60
05	4.50	0.90	13	8.50	1.60
06	5.00	1.00	14	9.00	1.80
07	5.50	1.00	15	9.50	2.00
08	6.00	1.20	16	10.00	2.60

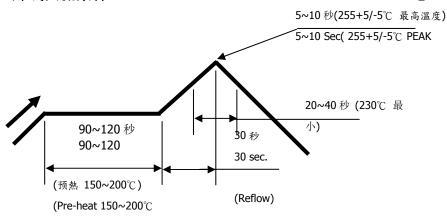
注: 以上插拔次数为 30 次 Note: Insertion and Withdrawal for 30Cycles

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### 【7. SMT 红外线回流条件 SMT INFRARED 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.