



Part No.	YY-A5041~YY-A5046 YY-A5002	PRODUCT SPECIFICATION	Document No.	SPA504X-A	
Title	5.0mm(.197)Wire to Board Connector		Rev.	A0	Page 1 of 4

1. Product & Part Number

Product Name	Product Number
Housing	YY-A5002-H
Header	YY-A5041,YY-A5042,YY-A5043,YY-A5044,YY-A5045,YY-A5046
Terminal	YY-A5002-T

2. Material

Product Name	Material
Housing	Nylon 66 UL94-V0 GWT 750°C No Flame
Header	Nylon 66 UL94-V0 GWT 750°C No Flame Brass ; Tin-plated , Sliver-plated
Terminal	Brass ; Tin-plated

3. Shape, Construction and Dimensions

See attached drawings

Created	Checked	Approved	Date
Frank	Denise	Jessica	2012/2/1



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4. Electrical Performance

	ITEM	TEST CONDITION	REQUIREMENT
4-1	Rated current and Voltage 最大容許電壓		250 V AC 10A Max. for Tin plated
4-2	Contact Resistance 接觸組抗	Dry circuit of DC 20mV Max. , 100mA Max. (EIA 364-23B) 組合狀態下連接器,於其兩端施以最大電 壓 20mV 以及最大電流 100mA	5mΩ Max. (Initial) 最大值
4-3	Dielectric Strength 耐電壓	When applied 2.5KV 1minute between adjacent terminal (EIA 364-20C) 組合狀態下連接器,於其相 鄰兩導體末端各施以 2500V AC(實效值) 時間 1 分鐘	No Breakdown 沒有損壞
4-4	Insulation Resistance 絕緣組抗	When applied DC 500 V between adjacent terminal or ground (EIA 364-21C) 組合狀態下連接器,對相鄰兩接觸導體,各 施以 500V DC 電壓量測其間絕緣阻抗值	> 10,000 MΩ

5. Mechanical Performance

	ITEM	TEST CONDITION	REQUIREMENT
5-1	Wire Retention Force 壓鑄端子拔出力	Apply a straight tensile force parallel to the direction of the wire at a rate of 25~100 per minute 固定壓鑄端子,用軸向的力量拔出電線以 每分鐘 25±3 mm 的速率	0.5mm ² 60N (0.6Kgf) Min.
			1.0mm ² 90N (0.9Kgf) Min.
			1.5mm ² 135N (13.5Kgf) Min.
			2.5mm ² 200N (20.0Kgf) Min.
5-2	Mating Force 插入力	Force measured using a polished pin (EIA 364-13B)	15N (1.5Kgf) Max. Per Contact 最大值
5-3	Un-mating Force 拔出力	Force measured using a polished pin (EIA 364-13B)	6N (0.6Kgf) Min. Per Contact 最小值
5-4	Durability	10 cycles 10 次循环	Contact resistance: 接



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	耐久性		觸組抗 ≤ 10 mΩ		
5-5	Pin Retention Force 針保持力	Apply axial push force at the speed rate of 25±3mm/minute 以每分鐘 25±3 mm 的速率從塑膠將 PIN 針頂出.	45N (4.5Kgf) Min. (最小值)		

6. Environmental Performance

	ITEM	TEST CONDITION	REQUIREMENT
6-1	Temperature rise 溫度上升	Then carried the rated current 組合狀態下連接器,最大容許電流通電,量測連接器的上升溫度	30°C Max. 最大值
6-2	Vibration 耐震動性	Frequency:10~200 Hz Acceleration:15G Duration:8 hours/axis X,Y,Z axes (EIA 364-28D) 振幅/頻率/持續時間	Discontinuity: 電流中斷 1 micro seconds Max. Contact resistance: 接觸組抗 Less than twice of initial
6-3	SO ₂ Gas	Test gas concentration: CL ₂ =20 ppb NO ₂ =200 ppb H ₂ S=100 ppb SO ₂ =200 ppb Temperature: 30°C Exchange rate: 5 times/hour Test Duration: 16 hours (EIA 364-65,Condition III A)	Contact resistance: Less than twice of initial 接觸組抗
6-4	Salt Mist Spray 鹽水噴霧	Temperature:35±2°C Solution:5wt.%NaCl solution Exposing duration:96 hours (EIA 364-65-26B,Condition A) 曝露在鹽水噴霧下 96±4 小時 5+1%鹽水溶液 溫度 35± 3°C	Contact resistance: 接觸組抗 Less than twice of initial Insulation Resistance: 絕緣組抗 500 V, 5 MΩ Min. Appearance:No Damage 外觀沒有損壞



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6-5	Thermal cycling 溫度循環	192 cycles,one cycle consists of: One cycle consists of: (1)-55 °C , 30 min. (2)Room temp. 5 min. (3) 85 °C , 30 min. (4)Room temp. 5 min. (EIA 364-32C,Test Condition I) -55 °C 溫度持續 30 分鐘.室溫持續 5 分鐘 ++85°C 溫度持續 30 分鐘.室溫持續 5 分鐘 爲一循環 需做 25 循環	Contact resistance: Less than twice of initial 接觸組抗			
6-6	Solder ability 焊錫性	Soldering Time:10±0.5 second 時間 Solder Temperature: 245±5°C 溫度 (IEC-68-2-20 method 1 and client request)	Minimum: 95% of immersed area 吃錫面積			
6-7	Dry Heat 溫度(熱)	110 °C , 168hrs.	No Damage 沒有損壞			
6-8	Cold Exposure 溫度(冷)	-40 °C , 2hrs. (EIA 364-59A,Test Condition 3,Test Condition A)	No Damage 沒有損壞			

	ITEM	TEST CONDITION	REQUIREMENT
6-9	Glow Wire Test 燃燒測試	Connector subject to rated temp glow wire for 30 seconds on X,Y & Z axis (IEC 60695-2-11)	Glow wire temp=750°C The tissue paper placed below it shall not ignite.
6-10	Ball Pressure Test	Test for 1 hour at +140°C (IEC 60695-10-2)	Diameter of footprint not to exceed 2mm

7. Operating Temperature : -40 to +105°C

環境溫度