



Part No.	YY-5900 (GWT)	PRODUCT SPECIFICATION	Document No.		SP5900GWT-B	
Title	4.2mm(.165") Pitch Wire to Board Connector(Single Row)		Rev.	A0	Page	1 of 5

1. Applicable Standards

EIA- 364

2. Product & Part Number

Product Name	Product Number
Housing	YY-5700-H**AS*-GT ; YY-5700-H**AS*-GW
Terminal	YY-5700-T
Header	YY-5900-W**R*S*-GT ; YY-5900-W**R*S*-GW YY-5900-W**S*S*-GT ; YY-5900-W**S*S*-GW

3. Material

Product Name	Material	
Housing	GT : Nylon 66 UL94-V2 GWT 750°C No Flame GW : Nylon 66 UL94-V0 GWT 750°C No Flame	
Terminal	Brass or Phosphor Bronze; Tin-plated , Selective gold plated	
Header	Base	GT : Nylon 66 UL94-V2 GWT 750°C No Flame GW : Nylon 66 UL94-V0 GWT 750°C No Flame
	Pin	Brass ; Tin-plated , gold plated

4. Shape, Construction and Details

See attached drawings,

Created	Checked	Approved	Date
Frank	Chen	Denise	2012/07/12



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5. Electrical Performance

	ITEM	TEST CONDITION	REQUIREMENT				
5-1	Rated Voltage (Max.) 最大容許電壓		400V AC (r.m.s.)				
	Rated Current and Applicable Wire 適合的線材所承受的電流	Wire Gage	Circuits	2~3	4~6	7~10	11~12
		AWG #16 ~ #18		9A	8A	7A	6A
		AWG #20		7A	6A	5A	5A
		AWG #22		5A	4A	4A	4A
		AWG #24		4A	3A	3A	3A
	AWG #26		3A	2A	2A	2A	
5-2	Contact Resistance 接觸阻抗	Dry circuit of DC 20mV Max. , 100mA Max. , Wire resistance shall be removed from the measured value 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	10mΩ Max. 最大值				
5-3	Dielectric Strength 耐電壓	When applied AC 1500V 1minute between adjacent terminal 組合狀態下連接器,於其相鄰兩導體末端各施以 1500V AC(實效值)時間 1 分鐘	No Change 沒有損壞				
5-4	Insulation Resistance 絕緣組抗	When applied DC 500 V between adjacent terminal or ground 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	1000MΩ Min. 最小值				

6. Mechanical Performance

	ITEM	TEST CONDITION	REQUIREMENT	
6-1	Wire size 適用的線材規格	Specified wire size 線材規格清單	Accepts AWG#16~#26	
6-2	Crimping Pull Out Force 壓鑄端子拔出力	Fix the crimped terminal , apply axial pull out force on the wire at the speed	AWG#16	11.0KgMin.
			AWG#18	9.0KgMin.



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		rate of 25±3mm/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	AWG#20	7.0KgfMin.		
			AWG#22	5.0KgfMin.		
			AWG#24	3.0KgfMin.		
			AWG#26	2.0KgfMin.		
6-3	Terminal Insertion Force 端子插入力	Insertion speed 25±3mm/minute into housing 壓鑄端子插入 Housing 以每分鐘 25±3 mm 的速率	1.5Kgf Max. 最大值			
6-4	Terminal/Housing Retention Force 端子/Housing 保持力	Apply axial pull out force at the speed rate of 25±3 mm/minute on the terminal assembled in the housing 用軸向的力量拔出組裝在 Housing 裡的端子以每分鐘 25±3 mm 的速率	5.0Kgf Min. 最小值			

	ITEM	TEST CONDITION	REQUIREMENT
6-5	Single Contact Insertion Force 單 pin 插入力	Measure force to insertion using mating square pin at speed 25±3 mm/minute 量測 Terminal 和 pin 針插入之力量.每分鐘 25±3 mm 的速率	0.7Kgf Max. 插入力(最大值)
6-6	Single Contact Withdrawal Force 單 pin 拔出力	Measure force to withdrawal using mating square pin at speed 25±3 mm/minute 量測 Terminal 和四方 pin 拔出之力量.每分鐘 25±3 mm 的速率	0.1Kgf Min. 拔出力(最小值)
6-7	Durability 耐久性	Connector shall be subjected to 100 cycles of insertion and withdrawal 插入拔出 100 循環,以一分鐘 10 循環的速率	Contact resistance: 20mΩ Max. 接觸組抗
6-8	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.	1.0Kgf Min. (最小值)
6-9	Locking Force 卡扣拉力	While with drawing plug & receptacle without terminal at speed 25±3 mm/minute 以每分鐘 25±3 mm 的速率從塑膠從 Wafer 卡扣中拔出	1.5Kgf Min. (最小值)



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7. Environmental Performance

	ITEM	TEST CONDITION	REQUIREMENT
7-1	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
7-2	Vibration 耐震動性	1.5 mm 10-55-10 HZ/ minute each 2 hours for X , Y and Z directions 振幅/頻率/持續時間	Appearance:No Damage 外觀沒有損壞 Discontinuity: 電流中斷 1 micro seconds Max.
7-3	Humidity 耐濕性	溫度 40±2 , 相對溼度 90-95%RH , 持續時間 96 hours Measurement must be taken within 30 min. after tested	Appearance: No damage 外 觀沒有損壞 Contact resistance:接觸組 抗 Less than twice of initial Dielectric strength:耐電壓 To pass para. 5-3 滿足 5-3
7-4	Salt spray 鹽水噴霧	Temperature: 35±3°C Solution: 5±1% Spray time: 8±4 hours Measurement must be taken after water rinse 曝露在鹽水噴霧下 8±4 小時 5+1%鹽水溶液 溫度 35± 3°C	Appearance: No damage Contact resistance: 20mΩ Max. 接觸組抗 外觀沒有損壞

	ITEM	TEST CONDITION	REQUIREMENT
7-5	Temperature cycling 溫度循環	One cycle consists of : (1)-40 ⁺⁰ ₋₃ °C , 30 min. (2)Room temp. 10-15 min. (3) 105 ⁺³ ₋₀ °C , 30 min. (4)Room temp. 10-15 min. -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	Appearance: No damage Contact resistance: 20mΩ Max. 接觸組抗 外觀沒有損壞



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		為一循環 需做 25 循環				
7-6	Heat aging 耐熱老化	105±2°C , 96 hours 組合連接器放置於烤箱中,進行高溫老化試驗		No Damage 沒有損壞		
7-7	Solder ability 焊錫性	Soldering Time:5±0.5 second 時間 Solder Temperature: 245±5°C 溫度		Minimum: 95% of immersed area 吃錫面積		
7-8	Resistance to soldering heat	Soldering Time: 5±0.5 second 時間 Solder Temperature: 260±5°C 溫度		No Damage 沒有損壞		

8. Operating Temperature:

-40 to + 105°C

環境溫度



Part No.	YY-5900 (GWT)	PRODUCT SPECIFICATION	Document No.		SP5900GWT-A	
Title	4.2mm(.165") Pitch Wire to Board Connector(Dual Row)		Rev.	A0	Page	1 of 5

1. Applicable Standards

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2. Product & Part Number

Product Name	Product Number
Housing	YY-5700-H**AD*-GT ; YY-5700-H**AD*-GW
Terminal	YY-5700-T
Header	YY-5900-W**R*-GT ; YY-5900-W**S*-GW

3. Material

Product Name	Material	
Housing	GT : Nylon 66 UL94-V2 GWT 750°C No Flame GW : Nylon 66 UL94-V0 GWT 750°C No Flame	
Terminal	Brass or Phosphor Bronze; Tin-plated , Selective gold plated	
Header	Base	GT : Nylon 66 UL94-V2 GWT 750°C No Flame GW : Nylon 66 UL94-V0 GWT 750°C No Flame
	Pin	Brass ; Tin-plated , gold plated

4. Shape, Construction and Details

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5. Electrical Performance

	ITEM	TEST CONDITION	REQUIREMENT				
5-1	Rated Voltage (Max.) 最大容許電壓		400V AC (r.m.s.)				
	Rated Current and Applicable Wire 適合的線材所承受的電流	Wire Gage	Circuits	2	4~6	8~10	12~24
		AWG #16 ~ #18		9A	8A	7A	6A
		AWG #20		7A	6A	5A	5A
		AWG #22		5A	4A	4A	4A
		AWG #24		4A	3A	3A	3A
	AWG #26		3A	2A	2A	2A	
5-2	Contact Resistance 接觸阻抗	Dry circuit of DC 20mV Max. , 100mA Max. , Wire resistance shall be removed from the measured value 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	10mΩ Max. 最大值				
5-3	Dielectric Strength 耐電壓	When applied AC 1500V 1minute between adjacent terminal 組合狀態下連接器,於其相鄰兩導體末端各施以 1500V AC(實效值)時間 1 分鐘	No Change 沒有損壞				
5-4	Insulation Resistance 絕緣組抗	When applied DC 500 V between adjacent terminal or ground 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	1000MΩ Min. 最小值				

6. Mechanical Performance

	ITEM	TEST CONDITION	REQUIREMENT	
6-1	Wire size 適用的線材規格	Specified wire size 線材規格清單	Accepts AWG#16~#26	
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6-3	Terminal Insertion Force 端子插入力	Insertion speed 25±3mm/minute into housing 壓鑄端子插入 Housing 以每分鐘 25±3 mm 的速率	1.5Kgf Max. 最大值			
6-4	Terminal/Housing Retention Force 端子/Housing 保持力	Apply axial pull out force at the speed rate of 25±3 mm/minute on the terminal assembled in the housing 用軸向的力量拔出組裝在 Housing 裡的端子以每分鐘 25±3 mm 的速率	5.0Kgf Min. 最小值			

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6-8	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.	1.0Kgf Min. (最小值)
6-9	Locking Force 卡扣拉力	While with drawing plug & receptacle without terminal at speed 25±3 mm/minute 以每分鐘 25±3 mm 的速率	1.5Kgf Min. (最小值)



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			從塑膠從 Wafer 卡扣中拔出		

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7-1	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
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		為一循環 需做 25 循環				
7-6	Heat aging 耐熱老化	105±2°C , 96 hours 組合連接器放置於烤箱中,進行高溫老化試驗		No Damage 沒有損壞		
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8. Operating Temperature:

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