



Part No.	YY-1600	<b>PRODUCT SPECIFICATION</b>	Document No.	SP1600-01
Title	2.54mm(.100)Pitch Wire to Board Connector		Rev.	A0
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### 1. Applicable Standards

MIL-STD-202      Methods for test of connectors for electronic equipment  
MIL-STD-1344      Test methods for electrical connectors

### 2. Product & Part Number

Product Name	Product Number
Housing	YY-1600-H
Header	YY-1600-WS ; YY-1600-WR
Terminal	YY-1600-T

### 3. Material

Product Name	Material
Housing	Nylon 66 UL94-V0 , Nylon 66 UL94-V2
Header	Nylon 66 UL94-V0 , Nylon 66 UL94-V2 Brass ; Tin-plated , Gold-plated
Terminal	Phosphor Bronze , Brass Tin-plated , Gold-plated

### 4. Shape, Construction and Dimensions

See attached drawings

Created	Checked	Approved	Date
Frank	Denise	Jessica	2011/10/27



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### 5. Electrical Performance

ITEM	TEST CONDITION	REQUIREMENT
5-1 Rated current and Voltage 最大容許電壓		3A .250V AC,DC
5-2 Contact Resistance 接觸組抗	Dry circuit of 20mV Max., 100mA 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	20mΩ Max. 最大值
5-3 Dielectric Strength 耐電壓	When applied AC 1000V 1 minute between adjacent terminal 組合狀態下連接器,於其相鄰兩導體末端各施以 800V AC(實效值)時間 1 分鐘	No Breakdown 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	1000 MΩ 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#22~#28 適合範圍
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 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#22 4.6Kgf Min.
		AWG#24 3.0Kgf Min.
		AWG#26 1.8Kgf Min.
		AWG#28 1.1Kgf Min.
6-3 Terminal/Housing 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	1.0Kgf Max. 最大值
6-4 Terminal/Housing Retention Force	Apply axial pull out force at the speed rate of 25±3 mm/minute on the terminal assembled in the housing	1.5Kgf Min. 最小值



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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	When mated up to 100 cycles by the rate of 10 cycles per min. 插入拔出 100 循環,以一分鐘 10 循環的速率	Contact resistance: 接觸組抗 Less than twice of initial
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.	2.0Kgf Min. (最小值)

## 7. Environmental Performance

ITEM	TEST CONDITION	REQUIREMENT
7-1 溫度上升	Then carried the rated current 組合狀態下連接器,最大允許電流通電,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	40±2°C, 90-95%RH, 96 hours Measurement must be taken within 30 min. after tested 溫度 40±2°C, 相對溼度 90-95%RH, 持續時間 96 hours Measurement must be taken within 30 min. after tested	Contact resistance: 接觸組抗 Less than twice of initial Appearance:No Damage 外觀沒有損壞 Dielectric strength: 耐電壓 To pass para.5-3 滿足 5-3



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7-4 Salt spray 鹽水噴霧	Temperature cycling 溫度循環	Temperature:35±3°C Solution:5±1°C Spray time:48±4 hours Measurement must be taken after water rinse 曝露在鹽水噴霧下 48±4 小時 5+1%鹽水溶液 溫度 35± 3°C	Contact resistance: Less than twice of initial Appearance:No Damage 接觸組抗 外觀沒有損壞			
7-5	Temperature cycling 溫度循環	One cycle consists of: (1)-55 <sup>+0</sup> <sub>-3</sub> °C , 30 min. (2)Room temp. 10-15 min. (3) 85 <sup>+3</sup> <sub>0</sub> °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 為一循環 需做 25 循環	Contact resistance: Less than twice of initial Appearance:No Damage 接觸組抗 外觀沒有損壞			
7-6 Solder ability 焊錫性		<b>Tin-Lead Process:</b> Soldering Time:5±0.5 second 時間 Solder Temperature: 230±5°C 溫度 <b>Lead-Free Process:</b> Soldering Time:3±0.5 second 時間 Solder Temperature: 245±5°C 溫度	Minimum: 90% of immersed area 吃錫面積			
7-7 Resistance to Solder Heat 焊錫耐熱性		<b>Tin-Lead Process:</b> Soldering Time: 5±0.5 second 時間 Solder Temperature: 245±5°C 溫度 <b>Lead-Free Process:</b> Soldering Time: 5±0.5 second 時間 Solder Temperature: 260±5°C 溫度	No Damage 沒有損壞			
7-8 Heat Resistance 耐熱性		85± 2 °C , 96hrs. 組合連接器放置於烤箱中,進行高溫老化 試驗	No Damage 外觀沒有損壞			

8. Operating Temperature : -25 to +85°C  
環境溫度