

**Taiwan** 7F-12, No.14, Lane 609, Sec.5 Chung Hsin Rd San Chung City, Taipei Hsien, Taiwan, R.O.C. Tel: 886-2-2999-9629. Fax: 886-2-2999-0575

Part No.	YY-5	5700	PRODUCT SPECI	FICATION	Docume	ent NO.	SP5	700-02
Title	4.2mm(.1	.65") Pit	ch Wire to Board Connecto	or(Single Row)	Rev.	A0	Page	1of 4
	licable Sta							
	-STD-202 -STD-1344		ls for test of connectors for elect ethods for electrical connectors	ronic equipment				
2. Proc	luct & Part	t Numbe	r					
	Product N	Jame	Product Number					
	Housing		YY-5700-HS					
	Housing		YY-5800-HS					
	Terminal		<b>ҮҮ-5700-Т</b> ; <b>ҮҮ-5700-Т</b>					
	Header		YY-5900-WRS&WSS					
	Product N Housing	Jame	Material Nylon 66 UL94-V2					
			Nylon 66 UL94-V0					
	Terminal		Brass, Phosphor Bronze					
			Tin-plated	_				
	Header	Body	Nylon 66 UL94-V2					
		D.	Nylon 66 UL94-V0	_				
		Pin	Brass; Tin-plated					
-	pe, Constru attached drav		nd Dimensions					
	Created		Checked	Approved	1		Date	



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Part No.	YY-5700	PRODUCT	SPECIFICATION	Docun	nent NO.	SP5	5700-02
Title	4.2mm(.165") Pitc	h Wire to Board (	Connector(Single Row)	Rev.	A0	Page	2of 4

## 5. Electrical Performance

	ITEM	TEST CONDITION	REQUIR	EMENT
5-1	Rated Voltage (Max.)		600V AC	(r.m.s.)
	Rated Current and Applicable	Wire Gage / Circuits	3	4,5
	Wire	AWG #16 ~ #18	9A	8A
		AWG #20	7A	6A
		AWG #22	5A	4A
		AWG #24	4A	3A
		AWG #26	3A	2A
5-2	Contact Resistance	Dry circuit of DC 20mV Max., 100mA Max., Wire resistance shell be removed	10mΩ Max	
		from the measured value	TUIIIS2 IVIAX	
5-3	Dielectric Strength	When applied AC 1500V 1minute between	No Change	
		adjacent terminal		
5-4	Insulation Resistance	When applied DC 500 V between adjacent	1000MΩ M	lin.
		terminal or ground		

### 6. Mechanical Performance

	ITEM	TEST CONDITION	REQUI	REMENT
6-1	Wire size	Specified wire size	Accepts A	WG#16~#26
6-2	Crimping Pull Out Force	Fix the crimped terminal, apply axial pull	AWG#16	11.0KgfMin.
		out force on the wire at the speed rate of	AWG#18	9.0KgfMin.
		25±3mm/minute	AWG#20	7.0KgfMin.
			AWG#22	5.0KgfMin.
			AWG#24	3.0KgfMin.
			AWG#26	2.0KgfMin.
6-3	Terminal Insertion Force	Insertion speed 25±3mm/minute into housing	1.5Kg	f Max.



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Part No.	YY-5700	PRODUCT SPECIFIC	PRODUCT SPECIFICATION		Document NO.		700-02
Title	4.2mm(.165") Pitc	h Wire to Board Connector(Sin	ngle Row)	Rev.	A0	Page	3of 4

	ITEM	TEST CONDITION	REQUIREMENT
6-4	Terminal/Housing Retention	Apply axial pull out force at the speed rate of	5.0Kgf Min.
	Force	25±3 mm/minute on the terminal assembled	
		in the housing	
6-5	Single Contact Insertion Force	Measure force to insertion using mating	0.7Kgf Max.
		square pin at speed 25±3 mm/minute	
6-6	Single Contact Withdrawal	Measure force to withdrawal using mating	0.1Kgf Min.
	Force	square pin at speed 25±3 mm/minute	
6-7	Durability	Connector shall be subjected to 100 cycles of	Contact resistance:
		insertion and withdrawal	Less then twice of initial
6-8	Pin Retention Force	Apply axial push force at the speed rate of	1.0Kgf Min.
		25±3mm/minute	
6-9	Locking Force	While with drawing plug & receptacle	1.5Kgf Min.
		without terminal at speed 25±3 mm/minute	

# 7. Environmental Performance

	ITEM	TEST CONDITION	REQUIREMENT
7-1	Temperature rise	Then carried the rated current	30°C Max.
7-2	Vibration	1.5 mm 10-55-10 HZ/ minute each 2 hours for X , Y and Z directions	Appearance: No Damage Discontinuity: 1 micro second Max.
7-3	Solder ability	Tin-Lead Process: Soldering Time:5±0.5 second Solder Temperature: 230±5°C Lead-Free Process: Soldering Time:3±0.5 second Solder Temperature: 245±5°C	Minimum: 90% of immersed area
7-4	Resistance to soldering heat	<b>Tin-Lead Process:</b> Soldering Time: 5±0.5 second Solder Temperature: 245±5°C <b>Lead-Free Process:</b> Soldering Time: 5±0.5 second Solder Temperature: 260±5°C	No Damage
7-5	Heat aging	105±2°C, 96 hours (UL 94-V0)	No Damage



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Part No.	YY-5700	PRODUCT	SPECIFICATION	Docu	ment NO.	SP5	700-02
Title	4.2mm(.165") Pitc	h Wire to Board (	Connector(Single Row)	Rev.	A0	Page	4of 4
	ITEM TEST CONDITION				REQUIR	EMENT	
7-6		<b>40</b> ±2°C	, 90-95%RH , 96 hours measured	urement	Appearance	: No dan	nage
	Humidity	must be	taken within 30 min. after tes	ted	Contact resistance:		
					Less than tw Dielectric st		itial
					To pass para	-	
7-7		One cyc	ele consists of (UL 94-V0):		Appearance		nage
		$(1)-40^{+0}_{-3}$	$(1)-40^{+0}_{-3}$ °C , 30 min.		Contact resistance:		
		(2)Roor	n temp. 10-15 min.		Less than tw	vice of in	itial
			<sup>3</sup> °C , 30 min.				
	Tourne anothing acceling	(4)Roor	n temp. 10-15 min.				
	Temperature cycling	One cyc	ele consists of (UL 94-V2):				
		$(1)-25^{+0}_{-3}$	°C, 30 min.				
		(2)Roor	n temp. 10-15 min.				
			°C , 30 min.				
		0	n temp. 10-15 min.				
7-8		Tempera	ature: 35±3°C		Appearance	: No dan	nage
	Salt spray	Solution	n: 5±1%		Contact resi	stance:	
			me: 48±4 hours		Less than tw	vice of in	itial
		Measure	ement must be taken after wat	er rinse			

- 8. Ambient Temperature Range: -40 to +  $105^{\circ}$ C (UL 94V-0) -25 to + 85°C (UL 94V-2)
- 9. Mating Force And Unmating Force:

Unit: kgf

Number of Circuits	Mating Force (Max.)	Unmating Force (Min.)
3	2.10	0.80
4	2.80	1.20
5	3.50	1.60



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Part No.	YY-5	5700	PRODUCT	SPECIFICATION	Docume	ent NO.	SP5	700-01
Title	4.2mm(.	165") Pite	ch Wire to Board	Connector(Dual Row)	Rev.	A0	Page	1of 5
MIL MIL	licable Star -STD-202 -STD-1344 luct & Part	Methods Test met	hods for electrical co	s for electronic equipment nnectors				
[	Product N	Jame	Product Number					
	Housing	unic	YY-5700-H					
·	Housing		YY-5800-Н					
	Terminal		YY-5700-T ; YY-580	00-T				
·	Header		YY-5900-WR&WS					
	Product N Housing		Material Nylon 66 UL94-V2					
	Terminal		Nylon 66 UL94-V0 Brass , Phosphor Bro Tin-plated	onze				
•	Header	Body	Nylon 66 UL94-V2					
			Nylon 66 UL94-V0					
		Pin	Brass; Tin-plated					
	pe, Constru		l Dimensions					
	Created		Checked	Approved	d		Date	



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Part No.	YY-5700	PRODUCT SPECIFICATION	Docum	nent NO.	SP5	700-01
Title	4.2mm(.165") Pite	ch Wire to Board Connector(Dual Row)	Rev.	A0	Page	2of 5

#### 5. Electrical Performance

	ITEM	TEST CONDITION	R	REQUI	REME	NT
5-1	Rated Voltage (Max.)		60	600V AC (r.m.s.)		
	Rated Current and Applicable	Wire Gage Circuits	2	4~6	8~10	12~24
	Wire	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	Dry circuit of DC 20mV Max., 100mA				
		Max., Wire resistance shell be removed	10n	nΩ M	ax.	
		from the measured value				
5-3	Dielectric Strength	When applied AC 1500V 1minute between	No	Chang	e	
		adjacent terminal				
5-4	Insulation Resistance	When applied DC 500 V between adjacent	100	1000M $\Omega$ Min.		
		terminal or ground				

### 6. Mechanical Performance

	ITEM	TEST CONDITION	REQUIREMENT		
6-1	Wire size	Specified wire size	Accepts AWG#16~#26		
6-2	Crimping Pull Out Force	Fix the crimped terminal, apply axial pull	AWG#16	11.0KgfMin.	
		out force on the wire at the speed rate of	AWG#18	9.0KgfMin.	
		25±3mm/minute	AWG#20	7.0KgfMin.	
			AWG#22	5.0KgfMin.	
			AWG#24	3.0KgfMin.	
			AWG#26	2.0KgfMin.	
6-3	Terminal Insertion Force	Insertion speed 25±3mm/minute into	1.5Kgf Max.		
		housing	1.5145		



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Part No.	YY-5700	PRODUCT	SPECIFICATION	Docun	nent NO.	SP5	700-01
Title	4.2mm(.165") Pitch Wire to Board Connector(Dual Row)		Rev.	A0	Page	3of 5	

	ITEM	TEST CONDITION	REQUIREMENT
6-4	Terminal/Housing Retention	Apply axial pull out force at the speed rate of	5.0Kgf Min.
	Force	25±3 mm/minute on the terminal assembled	
		in the housing	
6-5	Single Contact Insertion Force	Measure force to insertion using mating	0.7Kgf Max.
		square pin at speed 25±3 mm/minute	
6-6	Single Contact Withdrawal	Measure force to withdrawal using mating	0.1Kgf Min.
	Force	square pin at speed 25±3 mm/minute	
6-7	Durability	Connector shall be subjected to 100 cycles of	Contact resistance:
		insertion and withdrawal	Less then twice of initial
6-8	Pin Retention Force	Apply axial push force at the speed rate of	1.0Kgf Min.
		25±3mm/minute	
6-9	Locking Force	While with drawing plug & receptacle	1.5Kgf Min.
		without terminal at speed 25±3 mm/minute	

## 7. Environmental Performance

	ITEM	TEST CONDITION	DEOLIDEMENT
		TEST CONDITION	REQUIREMENT
7-1	Temperature rise	Then carried the rated current	30°C Max.
7-2		1.5 mm 10-55-10 HZ/ minute each 2 hours	Appearance: No Damage
	Vibration	for X, Y and Z directions	Discontinuity:
			1 micro second Max.
7-3		Tin-Lead Process:	
		Soldering Time:5±0.5 second	
	Solder ability	Solder Temperature: 230±5°C	Minimum:
		Lead-Free Process:	90% of immersed area
		Soldering Time:3±0.5 second	
		Solder Temperature: 245±5°C	
7-4	Resistance to soldering heat	Tin-Lead Process:	No Damage
		Soldering Time: 5±0.5 second	
		Solder Temperature: 245±5°C	
		Lead-Free Process:	
		Soldering Time: 5±0.5 second	
		Solder Temperature: 260±5°C	
7-5	Heat aging	105±2°C, 96 hours (UL 94-V0)	No Damage



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Part No. YY-5700 PRO		PRODUCT	<b>DDUCT SPECIFICATION</b> Docu		ment NO.	SP5	SP5700-01	
Title	4.2mm(.165") Pite	Pitch Wire to Board Connector(Dual Row) Rev		Rev.	A0	Page	4of 5	
	_							
	ITEM		TEST CONDITION			REQUIREMENT		
7-6	Humidity		$40\pm2^{\circ}$ C , 90-95%RH , 96 hours measurement must be taken within 30 min. after tested			<ul> <li>Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para. 5-3</li> </ul>		
7-7	Temperature cycling	$(1)-40^{+0}_{-3}$ $(2)Roor$ $(3)105^{+7}_{-0}$ $(4)Roor$ $(1)-25^{+0}_{-3}$ $(2)Roor$ $(3 85^{+3}_{-0}$	One cycle consists of (UL 94-V0): (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. One cycle consists of (UL 94-V2): (1)- $25^{+0}_{-3}$ °C , 30 min. (2)Room temp. 10-15 min. (3 85 $^{+3}_{-0}$ °C , 30 min. (4)Room temp. 10-15 min.		Appearance: No damage Contact resistance: Less than twice of initia			
7-8	Salt spray	Solution Spray ti	Temperature: 35±3°C Solution: 5±1% Spray time: 48±4 hours Measurement must be taken after water rinse		Appearance: No damage Contact resistance: Less than twice of initial			

8. Ambient Temperature Range:  $-40 \text{ to} + 105^{\circ}\text{C}$  (UL 94V-0) -25 to + 85°C (UL 94V-2)

9. Mating Force And Unmating Force:

Unit: kgf



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Part No.	YY-5700	PRODUCT SPECIFICATION Document		ent NO.	SP5	700-01	
Title	4.2mm(.165") Pitcl	h Wire to Board Connector(Dual Row) Rev.				Page	5of 5
9. Ma	ating Force And Unma	ating Force:	Unit	: kgf		1 1	
	Number of Circuits	Mating Force (Max.)	Unmating For	ce (Min.)	)		
	2 1.8 0.25						
	4	2.6	0.5				
	6	4.1	0.8				
	8	5.5 1.2					
	10 6.8 1.6						
	12	8.3	2.0				
	14	9.7	2.4				
	16 11.0 2.8						
	18	18 12.5 3.2					
	20	13.8	3.6				
	22	15.2	4.1				
	24	16.5	4.6				