

ENGINEERING DEPT.		PRODUCT SPECIFICATION For 1.25mm Pitch Wire to Board Connector of CI42 System	SPEC.NO.: SPCI073B
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1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire

2. APPLICABLE STANDARDS:

MIL - STD - 202	Methods for test of connectors for electronic equipment
MIL - STD - 1344	Test methods for electrical connectors
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: CI42 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")

6.2 P.C. Board Layout: See attached drawings



REVIEWED: David APPROVED: Eisley VERIFIED: Enya

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1A 200V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 10 mA max.	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 100 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Wire size	Specified wire size	Accepts AWG#28~#32	
8.2	Terminal crimp Tensile strength	When crimped AWG#28 size wire When crimped AWG#30 size wire When crimped AWG#32 size wire	More than 1.3 Kgf More than 0.8 Kgf More than 0.6 Kgf	
8.3	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 0.4 Kgf	
8.4	Terminal insertion force	Insertion speed 25± 3 mm per minute into housing	Less than 0.5 Kgf	
8.5	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 0.5 Kgf	
8.6	Mating & Unmating Force	Measure the force required to mating & unmating connector at speed 25± 3 mm per minute(Used ACES Housing & Terminal)	Mating force	
			2~3P	0.8 kgf Max.
			4~8P	1.5 kgf Max.
			9P	2.0 kgf Max.
			10P	4.0 kgf Max.
			Unmating force	
			2~5P	0.5 kgf Min.
			6~9P	0.8 kgf Min.
10P	1.0 kgf Min.			
8.7	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal (repeatedly by the rate of 10 cycles per minute)	Contact resistance: Less than twice of initial	

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9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Then carried the rated current	30°C max.
9.2	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.
9.3	Solder ability	Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Lead-Free Process for SMT Type: Refer Reflow temperature profile(11.1)	Appearance: No damage Contact resistance: To pass para 7-2
9.5	Heat aging	85 ± 2°C , 96 hours	Appearance: No damage Dielectric strength: To pass para 7-3 Insulation resistance: More than 100 MΩ Contact resistance: Less than twice of initial
9.6	Humidity	40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Dielectric strength: To pass para 7-3 Insulation resistance: More than 100 MΩ Contact resistance: Less than twice of initial
9.7	Temperature cycling	One cycle consists of : (1)-55 ⁺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 Dielectric strength: To pass para 7-3 Insulation resistance: More than 100 MΩ Contact resistance: Less than twice of initial
9.8	Salt spray	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

10. AMBIENT TEMPERATURE RANGE: -55 to + 85°C

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11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

