

ENGINEERING DEPT.	PRODUCT SPECIFICATION	SPEC.NO.: SPCI110A
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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
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: CIL1 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 P.C. Board Layout: See attached drawings



REVIEWED : David APPROVED : Eisley VERIFIED : Clark .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3.0A 250V 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 1500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 1000 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Pin retention force in Board mount Header	Push Pin for insulator base at speed 25± 3 mm per minute	More than 0.3 kgf	
8.2	Mating & Unmating force	Speed 25± 3 mm per minute	Mating:	Less than 3.0 kgf
			Unmating:	More than 0.5 kgf
8.3	Durability	Connector shall be subjected to 10 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial	

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	Heat aging	85± 2°C, 96 hours	No damage
9.4	Humidity	60± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3

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9.5	Temperature cycling	One cycle consists of : (1) $-55 \begin{smallmatrix} +0 \\ -3 \end{smallmatrix} ^\circ\text{C}$, 30 min. (2) Room temp. 10-15 min. (3) $85 \begin{smallmatrix} +3 \\ -0 \end{smallmatrix} ^\circ\text{C}$, 30 min. (4) Room temp. 10-15 min. Total cycles : 5 cycles	Appearance: No damage Contact resistance: Less than twice of initial
9.6	Salt spray	Temperature: $35 \pm 3^\circ\text{C}$ Solution: $5 \pm 1\%$ Spray time: 48 ± 4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial
9.7	Solder ability	Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: $245 \pm 5^\circ\text{C}$	Minimum: 90% of immersed area
9.8	Resistance to soldering heat	Lead-Free Process for SMT Type: Refer Reflow temperature profile(11.1)	No damage
9.9	Micro Vibration	100 G 50 Cycle/min 20,000 cycles	Appearance: No damage Contact resistance: Less than twice of initial Insulation resistance: To pass para 7-4

10. AMBIENT TEMPERATURE RANGE: -25 to $+85^\circ\text{C}$

11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

