

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CIL1 Connectors	SPEC.NO.: SPCI110B
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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
EIA - 364	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 : Eisley APPROVED : Eisley VERIFIED : Eric .



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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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	ITEM	TEST CONDITION	REQUIREMENT
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 (Stamping before plated) Spray time: 24 ± 4 hours (Stamping after plated) Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water and dried naturally, after which the specified measurements shall be performed. The specimens shall be suspended from the top using waxed twine, string or nylon thread. The test only define the plating area, without plating area (as copper cross section) will not be defined. (EIA 364-26B / MIL-STD-202 Method 101)	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 $+85^{\circ}\text{C}$

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11. Recommended IR Reflow Temperature Profile:
11.1 Using Lead-Free Solder Paste

