



ENGINEERING DEPT.		PRODUCT SPECIFICATION For CP27 Connectors	SPEC.NO.: SPCP088B
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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.: CP27 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 : Sun VERIFIED : Eric .



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		2.5A AC (r.m.s.)/DC 100V AC (r.m.s.)/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 30 mΩ
7.3	Dielectric strength	When applied AC 1700 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 from insulator base at speed 25± 3 mm per minute		More than 0.3 kgf	
8.2	Mating and Unmating force	Speed 25± 3 mm per minute		Mating (Max.)	Unmating (Min.)
			2P	0.5 kgf	0.2 kgf
			4P	1.0 kgf	0.4 kgf
8.3	Durability	Connector shall be subjected to 30 cycles of insertion and withdrawal		Appearance: No damage Contact resistance: Less than 40mΩ Dielectric strength: No change Insulation resistance: More than 1000 MΩ	

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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	Heat aging	85± 2°C, 96 hours	No damage Contact resistance: Less than 40mΩ
9.3	Vibration	The electrical load condition shall be 100mA max. for all contacts. 1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions (EIA-364-28)	Appearance: No damage Discontinuity: 1 micro second max.
9.4	Humidity	40± 2°C, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than 40mΩ Dielectric strength: No change Insulation resistance: More than 10 MΩ
9.5	Solder ability	Soldering time: 3±0.5 second Soldering pot: 245±5°C	Minimum: 95% of immersed area
9.6	Resistance to soldering heat	Soldering time: 10 Sec Max. Soldering pot: 260 ± 5°C	No damage
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. Total cycles : 5 cycles	Appearance: No damage Contact resistance: Less than 40mΩ
9.8	Cold aging	-40± 3°C , 96 hours	Appearance: No damage Contact resistance: Less than 40 mΩ



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	ITEM	TEST CONDITION	REQUIREMENT
9.9	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 on function Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE: -40 to $+85^{\circ}\text{C}$