

ENGINEERING DEPT.	PRODUCT SPECIFICATION	SPEC.NO.: SPCP088A
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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.: 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 : Eisley VERIFIED : Hank .



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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		

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

ITEM	TEST CONDITION	REQUIREMENT
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
9.9	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 40mΩ

10. AMBIENT TEMPERATURE RANGE: -40 to + 85°C