

| ENGINEER  | RING DEPT. | PT. PRODUCT SPECIFICATION        |       | SPCP075C |
|-----------|------------|----------------------------------|-------|----------|
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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.: CP15 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 |  | 2~5Pin:<br>1.0A 150V AC (r.m.s)<br>3Pin Omitted Pin No. 2:<br>1.0A 250V AC (r.m.s) |
| 7.2 | Contact resistance        | Dry circuit of DC 20 mV max., 10 mA max.   | Less than $20 \text{ m}\Omega$   |
| 7.3 | Dielectric strength       | 2~5Pin: When applied AC 1300 V 1 minute between adjacent terminal  3Pin Omitted Pin No. 2: When applied AC 1500 V 1 minute | No change  |
| 7.4 | Insulation resistance     | When applied DC 500 V between adjacent terminal or ground  | More than $1000~\text{M}\Omega$  |

### 8. MECHANICAL PERFORMANCE:

| TEST CONDITION                        | REQUIREMENT                           |
|---------------------------------------|---------------------------------------|
| or insulator base at speed 25± 3 nute | More than 0.3 kgf                     |
| 3 mm per minute                       | More than 1.5 kgf                     |
|                                       | or insulator base at speed 25± 3 nute |



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|     | ITEM                     | TEST CONDITION  | REQUIREMENT                                    |
|-----|--------------------------|---|--|
| 8.3 | Durability               | Connector shall be subjected to 10 cycles of insertion and withdrawal | Contact resistance: Less than twice of initial |
| 8.4 | horizontal movable angle |   | Appearance: No damage                          |

# 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 |
| 9.5 | Temperature cycling | One cycle consists of:  (1) -55  | Appearance: No damage Contact resistance: Less than twice of initial                                       |



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|     | ITEM           | TEST CONDITION   | REQUIREMENT                |
|-----|----------------|--|----------------------------|
| 9.6 | Salt spray     | Temperature: 35 ± 3 °C   | Appearance:                |
|     |                | Solution: 5 ± 1%   | No damage on function      |
|     |                | Spray time: $48 \pm 4$ hours   | Contact resistance:        |
|     |                | (Stamping before plated)   | Less than twice of initial |
|     |                | Spray time: $24 \pm 4$ 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.   |                            |
| 9.7 | Solder ability | (EIA 364-26B / MIL-STD-202 Method 101)<br>Lead-Free Process:   | Minimum:                   |
| 7.1 | Soluci adility | Soldering time: $3 \pm 0.5$ second   | 90% of immersed area       |
|     |                | Soldering pot: 245 ± 5 °C  | 7070 Of Hilliersed area    |
| 9.8 | Resistance to  | Lead-Free Process for SMT Type:  | No damage                  |
| 7.0 | soldering heat | Refer Reflow temperature profile(11.1)   | 110 dumage                 |

10. AMBIENT TEMPERATURE RANGE: -25 to + 85 °C



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# 11. Recommended IR Reflow Temperature Profile:

### 11.1 Using Lead-Free Solder Paste

