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|--------------------------|-------------------|---|---------------------------|
| <b>ENGINEERING DEPT.</b> |                   | <b>PRODUCT SPECIFICATION</b><br><b>For CF01 Series Connector System</b> | <b>SPEC.NO.: SPCF001F</b> |
| <b>REVISIONS</b>         | <b>ECNT120078</b> |   | <b>PAGE: 1/3</b>          |

1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and Inserted on the specified size FPC and FFC

2. APPLICABLE STANDARDS:

MIL - STD - 202                      Methods for test of connectors for electronic equipment  
EIA - 364                                Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CF01 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")  
6.2 P.C. Board Layout: See attached drawings

7. ACCOMMODATED FPC/FFC THICKNESS

0.3 ± 0.05 mm (.012±.002")

REVIEWED : Eisley APPROVED : Sun VERIFIED : Michelle .

|                          |                   |   |                           |
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| <b>REVISIONS</b>         | <b>ECNT120078</b> |   | <b>PAGE: 2/3</b>          |

**8. ELECTRICAL PERFORMANCE:**

|     | ITEM                      | TEST CONDITION  | REQUIREMENT          |
|-----|---------------------------|---|----------------------|
| 8.1 | Rated current and voltage |   | 1 A 200V AC (r.m.s.) |
| 8.2 | Contact resistance        | Dry circuit of DC 20 mV max., 100 mA max.                 | Less than 20 mΩ      |
| 8.3 | Dielectric strength       | When applied AC 500 V 1 minute between adjacent terminal  | No change            |
| 8.4 | Insulation resistance     | When applied DC 500 V between adjacent terminal or ground | More than 500 MΩ     |

**9. MECHANICAL PERFORMANCE:**

|     | ITEM  | TEST CONDITION   | REQUIREMENT  |
|-----|---|--|--|
| 9.1 | Contact retaining force in insulator        | Retention speed 25± 3 mm per minute from housing   | More than 0.6 Kgf  |
| 9.2 | FPC / FFC withdrawal force (Reference data) | Measure force to withdrawal using 0.30 mm thickness FPC/FFC at speed 25± 3 mm per minute | Over 10 Circuits:<br>(0.4 + 0.05 × ckt.) Kgf Min.<br>Under 10 Circuits:<br>(0.15 + 0.05 × ckt.) Kgf Min. |
| 9.3 | Durability                                  | Connector shall be subjected to 20 cycles of insertion and withdrawal                    | Contact resistance:<br>Less than twice of initial  |

**10. ENVIRONMENTAL PERFORMANCE:**

|      | ITEM                         | TEST CONDITION  | REQUIREMENT  |
|------|------------------------------|---|--|
| 10.1 | Temperature rise             | Then carried the rated current                                      | 30°C Max.  |
| 10.2 | Vibration                    | 1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions | Appearance: No damage<br>Discontinuity:<br>1 micro second max. |
| 10.3 | Solderability                | Soldering time: 5 ± 0.5 second<br>Soldering pot: 230 ± 5°C          | Minimum:<br>90% of immersed area                               |
| 10.4 | Resistance to soldering heat | Soldering time: 5 ± 0.5 second<br>Soldering pot: 260 ± 5°C          | No damage  |
| 10.5 | Heat aging                   | 105 ± 2°C , 96 hours  | No damage  |

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| <b>REVISIONS</b>         | <b>ECNT120078</b> |   | <b>PAGE: 3/3</b>          |

|      | ITEM                | TEST CONDITION  | REQUIREMENT  |
|------|---------------------|---|--|
| 10.6 | Humidity            | 40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested   | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial<br>Dielectric strength:<br>To pass para 8-3 |
| 10.7 | Temperature cycling | One cycle consists of :<br>(1) -55 <sup>+0</sup> <sub>-3</sub> °C , 30 min.<br>(2) Room temp. 10-15 min.<br>(3) 85 <sup>+3</sup> <sub>-0</sub> °C , 30 min.<br>(4) Room temp. 10-15 min.  | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial   |
| 10.8 | Salt spray          | Temperature: 35 ± 3°C<br>Solution: 5 ± 1%<br>Spray time: 48 ± 4 hours<br>(Stamping before plated)<br>Spray time: 24 ± 4 hours<br>(Stamping after plated)<br>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.<br>The specimens shall be suspended from the top using waxed twine, string or nylon thread.<br>The test only define the plating area, without plating area (as copper cross section) will not be defined.<br>(EIA 364-26B / MIL-STD-202 Method 101) | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial   |

11. AMBIENT TEMPERATURE RANGE: -40 to +105°C