| ENGINEERING DEPT. |            | PRODUCT SPECIFICATION   | SPEC.NO.: | SPCB054B |
|-------------------|------------|---|-----------|----------|
| REVISIONS         | ECNT120150 | For 1.00 mm (.039") Board to Board<br>Connectors of System CB12 | PAGE:     | 1/3      |

#### 1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and below standards base on CviLux test procedure

### 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.: CB12 Series

## 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

### 5. MATERIALS

See attached drawings

#### 6. ACCOMMODATED P.C.BOARD

 $0.8 \text{ mm} (.031'') \sim 1.6 \text{ mm} (.063'')$ 



| REVIEWED: | Eislev | APPROVED: | Sun | VERIFIED :                | Tessic |  |
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# 7. ELECTRICAL PERFORMANCE:

|     | ITEM                      | TEST CONDITION   | REQUIREMENT                       |
|-----|---------------------------|--|-----------------------------------|
| 7.1 | Rated current and voltage |  | 1A 250V AC (r.m.s.)               |
| 7.2 | Contact resistance        | Dry circuit of DC 20 mV max. 100 mA max.                 | Less than 20 m $\Omega$           |
| 7.3 | Dielectric strength       | When applied AC 300 V 1 minute between adjacent terminal | No damage                         |
| 7.4 | Insulation resistance     | When applied DC 500 V between adjacent terminal          | More than $1000~\mathrm{M}\Omega$ |

## 8. MECHANICAL PERFORMANCE:

|     | ITEM                            | TEST CONDITION  | REQUIREMENT                  |
|-----|---------------------------------|---|------------------------------|
| 8.1 | Single contact insertion force  | Measure force to insertion using 0.30 mm square pin at speed 25± 3 mm per minute  | 150 gram Max Per<br>Contact. |
| 8.2 | Single contact withdrawal force | Measure force to withdrawal using 0.30 mm square pin at speed 25± 3 mm per minute | 15 gram Min Per Contact.     |
| 8.3 | Durability                      | Connector shall be subjected to 150 cycles of insertion and withdrawal            | Appearance: No damage        |

## 9. ENVIRONMENTAL PERFORMANCE:

|     | ITEM                         | TEST CONDITION  | REQUIREMENT   |
|-----|------------------------------|---|---|
| 9.1 | Solder ability               | Soldering time: 3 ± 0.5 sec<br>Soldering pot: 240 ± 5°C | Minimum: 95% of immersed area   |
| 9.2 | Resistance to soldering heat | Soldering time: 7 ± 3 sec Soldering pot: 255 ± 5°C      | No damage   |
| 9.3 | Cold Resistance              | -40°C ± 3°C, 96 hours                                   | Appearance: No damage Contact resistance: $\triangle 20 \text{ m}\Omega \text{ change}$ |
| 9.4 | Heat Resistance              | 125°C ± 3°C, 96 hours                                   | Appearance: No damage Contact resistance: $\triangle 20 \text{ m}\Omega \text{ change}$ |



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|     | ITEM                | TEST CONDITION  | REQUIREMENT                               |
|-----|---------------------|---|---|
| 9.5 | Temperature Cycling | 5 cycles<br>(1) -40 °C, 30 min.   | Appearance: No damage Contact resistance: |
|     |                     | (2)Room temp. 10-15 min.  | $\triangle$ 20 m $\Omega$ change          |
|     |                     | (3) 125 °C, 30 min.   |   |
|     |                     | (4)Room temp. 10-15 min.  |   |
| 9.6 | Salt Spray          | Temperature: 35 ± 3°C   | Appearance: No damage                     |
|     |                     | Solution: 5 ± 1%  | Contact resistance:                       |
|     |                     | Spray time: 48 ± 4 hours  | Less than twice of initial                |
|     |                     | (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)  |   |

10. OPERATING TEMPERATURE: -40°C to + 125°C