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|--------------------|---|---------------------------|
| <b>ENGINEERING</b> | <b>PRODUCT SPECIFICATION</b>  | <b>SPEC.NO.: SPCB051A</b> |
| <b>DEPT.</b>       | <b>For 1.00 mm (.039") Board to Board Connectors of System CB03</b> | <b>PAGE: 1/3</b>          |

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.: **CB03 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

0.8 mm (.031") ~ 1.6 mm (.063")



REVIEWED : Eisley APPROVED : Eisley VERIFIED : Sandy.



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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 mΩ     |
| 7.3 | Dielectric strength       | When applied AC 300 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 | Contact retaining force in insulator | Retention speed 25± 3 mm per minute form housing                                  | More than 300 gram                                |
| 8.2 | Single contact insertion force       | Measure force to insertion using 0.30 mm square pin at speed 25± 3 mm per minute  | 150 gram max.                                     |
| 8.3 | Single contact withdrawal force      | Measure force to withdrawal using 0.30 mm square pin at speed 25± 3 mm per minute | 15 gram min.                                      |
| 8.4 | Durability                           | Connector shall be subjected to 150 cycles of insertion and withdrawal            | Contact resistance:<br>Less than twice of initial |

9. ENVIRONMENTAL PERFORMANCE:

|     | ITEM                         | TEST CONDITION  | REQUIREMENT  |
|-----|------------------------------|---|--|
| 9.1 | Solder ability               | Soldering time: 3 ± 0.5 sec<br>Soldering pot: 240 ± 5°C   | Minimum:<br>95% of immersed area   |
| 9.2 | Resistance to soldering heat | Soldering time: 7 ± 3 sec<br>Soldering pot: 255 ± 5°C<br>Refer Reflow temperature profile(11.1) | No damage  |
| 9.3 | Cold Resistance              | -40°C ± 3°C, 96 hours   | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |

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

|     | ITEM                | TEST CONDITION   | REQUIREMENT  |
|-----|---------------------|--|--|
| 9.4 | Heat Resistance     | 125°C ± 3°C, 96 hours  | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |
| 9.5 | Temperature Cycling | 5 cycles<br>(1) -40 °C , 30 min.<br>(2) Room temp. 10-15 min.<br>(3) 125 °C , 30 min.<br>(4) Room temp. 10-15 min. | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |
| 9.6 | Salt Spray          | Temperature: 35± 2°C<br>Solution: 5± 1%<br>Spray time: 6± 1 hours<br>Measurement must be taken after water rinse   | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |

10. OPERATING TEMPERATURE : -40°C to + 105°C

11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

