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| <p>ENGINEERING</p> <p>DEPT.</p> | <p>PRODUCT SPECIFICATION</p> <p>For 2.54 mm (.100") Board to Board Connectors of System CB94</p> | <p>SPEC.NO.: SPCB031B</p> <p>PAGE: 1/4</p> |
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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:

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|------------------|--|
| 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 |

3. APPLICABLE SERIES NO.: **CB94 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

1.6 mm (.063")



REVIEWED : Alex APPROVED : David VERIFIED : Jim .

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7. ELECTRICAL PERFORMANCE:

| | ITEM | TEST CONDITION | |
|-----|---------------------------|---|---------------------|
| 7.1 | Rated current and voltage | | 3A 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 1000 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 800 gram |
| 8.2 | Single contact insertion force | Measure force to insertion using 0.64 mm square pin at speed 25± 3 mm per minute | 800 gram max. |
| 8.3 | Single contact withdrawal force | Measure force to withdrawal using 0.64 mm square pin at speed 25± 3 mm per minute | 30 gram min. |
| 8.4 | Durability | Connector shall be subjected to 100 cycles of insertion and withdrawal | Contact resistance: Less than twice of initial |

9. ENVIRONMENTAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|---------------|---|--|
| 9.1 | 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. |
| 9.2 | Solderability | Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C | Minimum: 90% of immersed area |

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| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|------------------------------|---|--|
| 9.3 | Resistance to soldering heat | DIP Type Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5°C SMT Type Lead-Free Process: Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(11.1) | No damage |
| 9.4 | Heat aging | 105± 2°C, 96 hours | No damage |
| 9.5 | 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 twice of initial Dielectric strength: To pass para 7-3 |
| 9.6 | 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. | Appearance: No damage Contact resistance: Less than twice of initial |
| 9.7 | 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 twice of initial |

10. AMBIENT TEMPERATURE RANGE:

-40 to + 105°C ; + 215°C intermittent (Vapor Phase Solder Reflow) for SMT type

11. Recommended IR Reflow Temperature Profile:

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11.1 Using Lead-Free Solder Paste

