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|--------------------------|---|--------------------|
| ENGINEERING<br><br>DEPT. | PRODUCT SPECIFICATION<br>For High Density Right Angle Dip D-Sub<br>Connector of system CD05 | SPEC.NO.: SPCD003C |
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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:

MIL - STD - 202                      Methods for test of connectors for electronic equipment  
MIL - STD - 1344                    Test methods for electrical connectors

3. APPLICABLE SERIES No. : **CD05 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

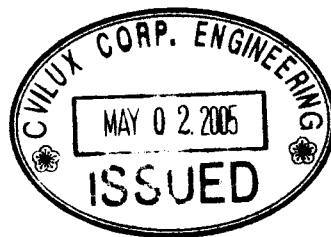
See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

1.6 mm (.063")



REVIEWED: AK APPROVED: David VERIFIED: Sun



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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 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 5000 MΩ   |

**8. MECHANICAL PERFORMANCE:**

|     | ITEM                                 | TEST CONDITION  | REQUIREMENT                                       |
|-----|--------------------------------------|---|---|
| 8.1 | Contact retaining force in insulator | Retention speed 25± 3 mm per minute from housing                                  | More than 2.5 Kgf                                 |
| 8.2 | Single contact insertion force       | Measure force to insertion using Ø 0.78 mm test pin at speed 25± 3 mm per minute  | 240 gram max.                                     |
| 8.3 | Single contact withdrawal force      | Measure force to withdrawal using Ø 0.74 mm test pin at speed 25± 3 mm per minute | 15 gram min.                                      |
| 8.4 | Durability                           | Connector shall be subjected to 100 cycles of insertion and withdrawal            | Contact resistance:<br>Less than twice of initial |

**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<br>Discontinuity:<br>1 micro second max.   |
| 9.3 | Solder ability               | Soldering time: 5 ± 0.5 second<br>Soldering pot: 230 ± 5 °C                            | Minimum:<br>90% of immersed area   |
| 9.4 | Resistance to soldering heat | Soldering time: 5 ± 0.5 second<br>Soldering pot: 260 ± 5 °C                            | No damage  |
| 9.5 | Heat aging                   | 105 ± 2 °C , 96 hours  | No damage  |
| 9.6 | 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 7-3 |



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|     | ITEM                | TEST CONDITION   | REQUIREMENT  |
|-----|---------------------|--|--|
| 9.7 | Temperature cycling | One cycle consists of :<br>(1) $-55^{+0}_{-3}$ °C , 30 min.<br>(2) Room temp. 10-15 min.<br>(3) $85^{+3}_{-0}$ °C , 30 min.<br>(4) Room temp. 10-15 min. | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |
| 9.8 | Salt spray          | Temperature: $35 \pm 3$ °C<br>Solution: $5 \pm 1\%$<br>Spray time: $48 \pm 4$ hours<br>Measurement must be taken after water rinse                       | Appearance: No damage<br>Contact resistance:<br>Less than twice of initial |

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

11. MATING FORCE AND UNMATING FORCE:

Unit: Kgf

| No. of Circuits | Mating Force ( Initial max. ) | Unmating Force ( Initial max. ) |
|-----------------|-------------------------------|---------------------------------|
| 15              | 5.1                           | 3.8                             |
| 26              | 9.2                           | 6.9                             |
| 44              | 12.6                          | 8.6                             |
| 62              | 16.4                          | 10.8                            |