ENGINEERING DEPT.

PRODUCT SPECIFICATION

For Right Angle Dip D-Sub Connector of system CD62

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SPEC.NO.: SPCD033B

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

SS-00254 Test methods for electronic components ,LEAD-FREE soldering Part

design standards

3. APPLICABLE SERIES NO.: CD62 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 $5000 \text{M}\Omega$ |

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 1.04 mm test pin at speed 25± 3 mm per minute | 340 gram max. |
| 8.3 | Single contact withdrawal force | Measure force to withdrawal using Ø 0.99 mm test pin at speed 25± 3 mm per minute | 28 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 | 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 Discontinuity: 1 micro second max. |
| 9.3 | Solderability | Tin-Lead Process: | Minimum: |
| | | Soldering time: 5 ± 0.5 second | 90% of immersed area |
| | | Soldering pot: 230 ± 5°C | |
| | | Lead-Free Process: | |
| | | Soldering time: 3 ± 0.5 second | |
| | | Soldering pot: 245 ± 5°C | |

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| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|------------------------------|---|---|
| 9.4 | Resistance to soldering heat | Tin-Lead Process: | No damage |
| | licat | Soldering time: 5 ± 0.5 second | |
| | | Soldering pot: 240 ± 5°C | |
| | | Lead-Free Process | |
| | | Soldering time: 5 ± 0.5 second | |
| | | Soldering pot: 260 ± 5°C | |
| 9.5 | Heat aging | 105 ± 2°C , 96 hours | No damage |
| 9.6 | Humidity | 40 ± 2°C , 90-95% RH , 96 hours | Appearance: No damage |
| | | measurement must be taken within 30 min. after tested | Contact resistance: |
| | | | Less than twice of initial Dielectric strength: |
| | | | To pass para 7-3 |
| 9.7 | Temperature cycling | One cycle consists of: | Appearance: No damage |
| | | (1) -55^{+0}_{-3} °C, 30 min. | Contact resistance: |
| | | (2)Room temp. 10-15 min. | Less than twice of initial |
| | | (3) 85^{+3}_{-0} °C, 30 min. | |
| | | (4)Room temp. 10-15 min. | |
| 9.8 | Salt spray | Temperature: 35 ± 3°C | Appearance: No damage |
| | | Solution: 5 ± 1% | Contact resistance: |
| | | Spray time: 48 ± 4 hours | Less than twice of initial |
| | | Measurement must be taken after water rinse | |

10. AMBIENT TEMPERATURE RANGE:

-40 to + $105\,^{\circ}\text{C}$; + $215\,^{\circ}\text{C}$ intermittent (Vapor Phase Solder Reflow) for SMT type

11. MATING FORCE AND UNMATING FORCE:

Unit: Kgf

| No. of Circuits | Mating Force (Initial max.) | Unmating Force (Initial max.) |
|-----------------|-----------------------------|-------------------------------|
| 9 | 4.6 | 3.5 |
| 15 | 8.1 | 6.4 |
| 25 | 10.5 | 7.7 |
| 37 | 14.1 | 9.9 |