



<b>ENGINEERING</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC.NO.: SPCD036B</b>
<b>DEPT.</b>	<b>For Machined Contact D-Sub Connector of system CD72</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  
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. : **CD72 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

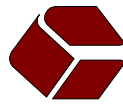
See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")  
6.2 P.C. Board Layout: See attached drawings



REVIEWED :  Alex  APPROVED :  David  VERIFIED :  Jim  .



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		5A 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 4.0 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	Solder ability	<b>Tin-Lead Process:</b> Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C <b>Lead-Free Process:</b> Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area



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	ITEM	TEST CONDITION	REQUIREMENT
9.4	Resistance to soldering heat	<b>Tin-Lead Process:</b> Soldering time: $5 \pm 0.5$ second Soldering pot: $240 \pm 5^{\circ}\text{C}$ <b>Lead-Free Process</b> Soldering time: $5 \pm 0.5$ second Soldering pot: $260 \pm 5^{\circ}\text{C}$	No damage
9.5	Heat aging	$105 \pm 2^{\circ}\text{C}$ , 96 hours	No damage
9.6	Humidity	$40 \pm 2^{\circ}\text{C}$ , 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
9.7	Temperature cycling	One cycle consists of : (1) $-55^{+0}_{-3}^{\circ}\text{C}$ , 30 min. (2) Room temp. 10-15 min. (3) $85^{+3}_{-0}^{\circ}\text{C}$ , 30 min. (4) Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.8	Salt spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: $48 \pm 4$ hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial

10. AMBIENT TEMPERATURE RANGE:  $-40$  to  $+105^{\circ}\text{C}$

11. MATING FORCE AND UNMATING FORCE:

Unit: Kgf

No. of Circuits	Mating Force ( Initial max. )	Unmaking Force ( Initial max. )
9	4.6	3.5
15	8.1	6.4
25	10.5	7.7
37	14.1	9.9
50	18.5	12.8