

ENGINEERING

DEPT.

PRODUCT SPECIFICATION For Solder & Straight Dip D-Sub Connector of system CD54

SPEC.NO.: SPCD030B

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

3. APPLICABLE SERIES NO.: CD54 Series

- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD 1.6 mm (.063")



REVIEWED : <u>Alex</u> APPROVED : <u>David</u> VERIFIED : <u>Jim</u>.



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
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 m Ω
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 M Ω

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 \emptyset 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 \emptyset 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	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
		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	$105 \pm 2^{\circ}C$, 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 Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3
9.7	Temperature cycling	One cycle consists of : (1) -55_{-3}^{+0} °C , 30 min. (2)Room temp. 10-15 min. (3) 85_{-0}^{+3} °C , 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
9.8	Salt spray	Temperature: $35 \pm 3 \circ C$ Solution: $5 \pm 1\%$ 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

11. MATING FORCE AND UNMATING FORCE:

		0 1181
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