

### ENGINEERING

## **PRODUCT SPECIFICATION**

For Stacked Right Angle Dip D-Sub Connector

DEPT.

**PAGE: 1/4** 

#### 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.: CD81 Series

## 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD6.1 Thickness: 1.6 mm (.063")6.2 P.C. Board Layout: See attached drawings



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



ENGINEERING DEPT.

**PRODUCT SPECIFICATION** 

For Stacked Right Angle Dip D-Sub Connector

SPEC.NO.: SPCD009F

**PAGE:** 2/4

#### 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 25 m $\Omega$
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 $\Omega$

#### 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 $\emptyset$ 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.



ENGINEERING

PRODUCT SPECIFICATION

SPEC.NO.: SPCD009F

DEPT.

For Stacked Right Angle Dip D-Sub Connector

PAGE: 3/4

	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	Tin-Lead Process:	Minimum:
		Soldering time: $5 \pm 0.5$ second	90% of immersed area
		Soldering pot: 230 ± 5°C	
		Lead-Free Process:	
		Soldering time: $3 \pm 0.5$ second	
		Soldering pot: 245 ± 5°C	
9.4	Resistance to soldering	Tin-Lead Process:	No damage
	heat	Soldering time: $5 \pm 0.5$ second	
		Soldering pot: 240 ± 5°C	
		Lead-Free Process	
		Soldering time: $5 \pm 0.5$ second	
		Soldering pot: 260 ± 5°C	
9.5	Heat aging	$105 \pm 2 ^{\circ}\text{C}$ , 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) $-55 + 0$ °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: $35 \pm 3$ °C	Appearance: No damage
		Solution: $5 \pm 1\%$	Contact resistance:
		Spray time: $48 \pm 4$ hours	Less than twice of initial
		Measurement must be taken after water rinse	

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



ENGINEERING

# PRODUCT SPECIFICATION

SPEC.NO.: SPCD009F

**PAGE:** 4/4

DEPT.

For Stacked Right Angle Dip D-Sub Connector

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