**ENGINEERING** 

# **PRODUCT SPECIFICATION**

SPEC.NO.: SPCD042A

DEPT.

For Solder & Straight Dip D-Sub Connector of system CD58

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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.: CD58 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>Alex</u> VERIFIED: <u>Hank</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 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 $5000~\mathrm{M}\Omega$

# 8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION		REQUIREMENT	
8.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	Plug	More than 4.0 Kgf	
			Recep	More than 1.0 Kgf	
8.2	Single contact insertion force	Measure force to insertion using Ø 1.00 mm test pin at speed 25± 3 mm per minute		250 gram ma	ax.
8.3	Single contact withdrawal force	Measure force to withdrawal using Ø 1.00 mm test pin at speed 25± 3 mm per minute		25 gram min	
8.4	Durability			Contact resistance:	
		insertion and withdrawal		Less than twice of initial	
8.5	Mating and Unmating force	Speed 25± 3 mm per minute		Mating (Max.)	Unmating (Min.)
				2.7 kgf	0.45 kgf

# 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.



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	ITEM	TEST CONDITION	REQUIREMENT
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	
9.4	Resistance to soldering heat	Tin-Lead Process:	No damage
		Soldering time: $5 \pm 0.5$ 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:
		after tested	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
ĺ		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°C