

## ENGINEERING

## PRODUCT SPECIFICATION

SPEC.NO.: SPCE001D

DEPT.

For Mini Circular DIN Connector of system CE50

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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

- 3. APPLICABLE SERIES NO.: CE50 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 : <u>Alex</u> APPROVED : <u>David</u> VERIFIED : <u>Sun</u>.



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## 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT			
7.1	Rated current and voltage		1A 100V AC (r.m.s.) 2A 12V DC			
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 30 m $\Omega$			
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change			
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 M $\Omega$			
8. MI	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 1.8 Kgf			
8.2	Mating force	Mating speed 25 mm/minute	4.5 Kgf max.			
8.3	Unmating force	Unmating speed 25 mm/minute	0.9 Kgf ~ 3.0 Kgf			
8.4	Durability	Connector shall be subject 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	Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C	Minimum: 90% of immersed area
9.4	Resistance to soldering heat	Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C	No damage
9.5	Heat aging	105±2°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



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	ITEM	TEST CONDITION	REQUIREMENT
9.7	Temperature cycling	One cycle consists of : (1)-55 $^{+0}_{-3}$ °C , 30 min. (2)Room temp. 10-15 min. (3) 85 $^{+3}_{-0}$ °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±3°C Solution: 5±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