

ENGINEERING

DEPT.

PRODUCT SPECIFICATION For 2.54 mm (.100") Center Spacing Flat Cable - IDC Connectors

SPEC.NO.: SPCA005B

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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 - 202Methods for test of connectors for electronic equipmentMIL - STD - 1344Test methods for electrical connectors

- 3. APPLICABLE SERIER NO.:CA21 Series
- 4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. APPLICABLE CABLES

1.27 mm (.050") center spacing Flat Cable

Insulator O.D.: 0.85 mm dia.

Construction: AWG #28 (7/0.127 mm)



REVIEWED: Alex APPROVED: David VERIFIED: Rita



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7. ELECTRICAL PERFORMANCE:

	ITEM TEST CONDITION		
7.1	Rated current and voltage		1 A 250V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 30 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 1000 M Ω

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Single contact insertion force	Measure force to insertion using 0.64 mm square pin at speed 25± 3 mm per minute	300 gram max.
8.2	Single contact withdrawal force	Measure force to withdrawal using 0.64 mm square pin at speed 25± 3 mm per minute	40 gram min.
8.3	Durability	Connector shall be subjected to 500 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1 9.2	Vibration Heat aging	 1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions 105 ± 2°C , 96 hours 	Appearance: No damage Discontinuity: 1 micro second max. No damage
9.3	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
9.4	Temperature cycling	One cycle consists of : (1) $-55 + 0 = 0$ °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



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	ITEN	Λ	TEST CONDITION	REQUIREMENT
9.5	Salt spray		Temperature: 35 ± 3 °C Solution: 5 ± 1 %	Appearance: No damage Contact resistance:
			Solution: $5 \pm 1\%$ 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