

<b>ENGINEERING DEPT.</b>		<b>PRODUCT SPECIFICATION</b> 1.27mm Pitch Male & Female Connector	<b>SPEC.NO.: SPCA009F</b>	
<b>REVISIONS</b>	<b>ECNT120076</b>		<b>PAGE:</b>	<b>1/5</b>

**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.: CA30/CA31/CA32 Series**

**4. SHAPE, CONSTRUCTION AND DIMENSIONS**

See attached drawings

**5. MATERIALS**

See attached drawings

**6. ACCOMMODATED CABLE AND P.C. BOARD:**

6.1 Thickness: 1.6mm(.063")

6.2 P.C. Board Layout: See attached drawings

REVIEWED : Eisley    APPROVED : Eisley    VERIFIED : Michelle .

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**7. ELECTRICAL PERFORMANCE:**

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		1.5 A 230V AC/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 10 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 100 V between adjacent terminal or ground	More than 1000 MΩ

**8. MECHANICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Pin retention force	Push pin form insulator base at speed 25±3 mm per minute	0.5 Kgf. min./ per contact
8.2	Mating Force	Insertion force at speed 25±3 mm per minute	500 gram max./per contact
8.3	Un-Mating Force	Withdrawing force at speed 25±3 mm per minute	100 gram min./per contact
8.4	Cable Retention Force	Cable withdrawing force at speed 25±3 mm per minute	1.0 kgf min./ Per contact

**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: 1micro second max.
9.3	Solder ability	Tin-Lead Process Soldering time: 5 ± 0.5 second Soldering pot: 230°± 5°C Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: 245 °± 5°C	Minimum: 90% of immersed area

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	ITEM	TEST CONDITION	REQUIREMENT
9.4	Resistance to soldering heat	Tin-Lead Process (TMD or SMD Type) Soldering time: $5 \pm 0.5$ second Soldering pot: $260^{+0}_{-5}$ °C Lead-Free Process (SMD Type) Refer recommended IR temperature profile	No damage
9.5	Hand Soldering Method	Use a soldering iron that has a sufficient head capacity and high stability of temperature. The tip of the iron should be shaped so as not to touch the part body directly. Temperature : $300 \pm 5$ °C 3s	No damage
9.6	Heat aging	$105 \pm 2$ °C , 96 hours	No damage
9.7	Humidity	$40 \pm 2$ °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
9.8	Temperature cycling	One cycle consists of : (1) $-40 +0$ °C , 30 min. (2) Room temp. $10-15$ min. (3) $105 +3$ °C , 30 min. (4) Room temp. $10-15$ min.	Appearance: No damage Contact resistance: Less than twice of initial

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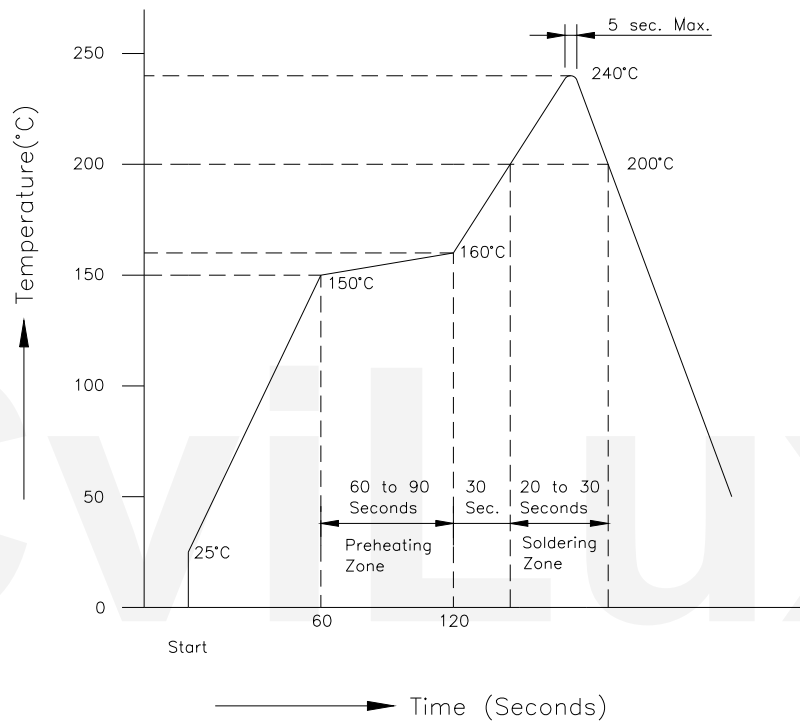
	ITEM	TEST CONDITION	REQUIREMENT
9.9	Salt spray	<p>Temperature: <math>35 \pm 3^{\circ}\text{C}</math>            Solution: <math>5 \pm 1\%</math>            Spray time: <math>48 \pm 4</math> hours            (Stamping before plated)            Spray time: <math>24 \pm 4</math> hours            (Stamping after plated)            Mate connectors and expose to the following salt mist conditions. Upon completion of the exposure period, salt deposits shall be removed by a gentle wash or dip in running water and dried naturally, after which the specified measurements shall be performed.            The specimens shall be suspended from the top using waxed twine, string or nylon thread.            The test only define the plating area, without plating area (as copper cross section) will not be defined.            (EIA 364-26B / MIL-STD-202 Method 101)</p>	<p>Appearance: No damage            Contact resistance:            Less than twice of initial</p>

10. AMBIENT TEMPERATURE RANGE:  $-40$  to  $+105^{\circ}\text{C}$

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11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste



11.2 Using Lead-Free Solder Paste

