

<b>ENGINEERING</b>	<b>PRODUCT SPECIFICATION</b>	<b>SPEC.NO.: SPCA009D</b>
<b>DEPT.</b>	<b>1.27mm Pitch Male &amp; Female Connector</b>	<b>PAGE: 1/4</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 : Alex      APPROVED : David      VERIFIED : Eisley .

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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	Solderability	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: 260 <sup>+0</sup> <sub>-5</sub> °C	Minimum: 90% of immersed area

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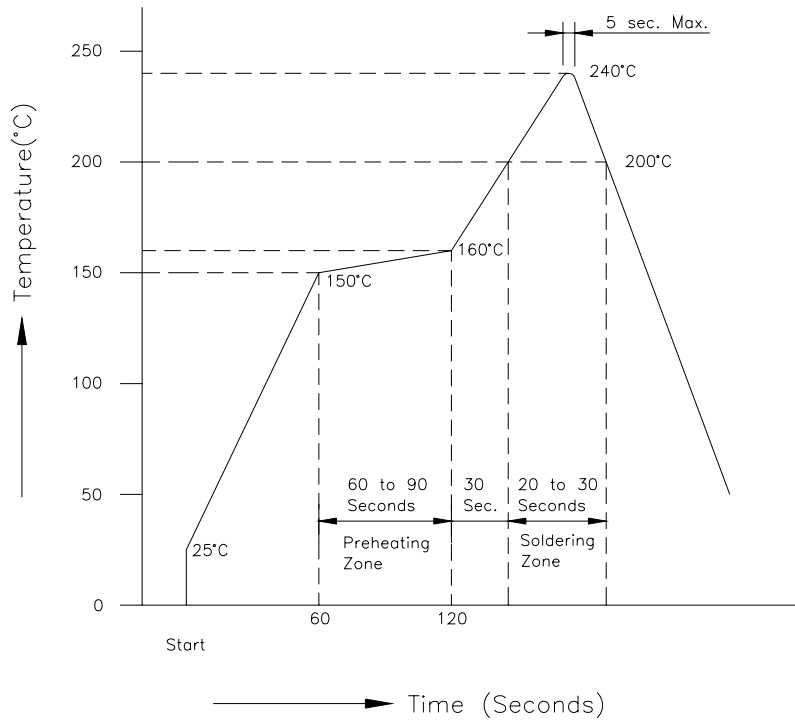
	ITEM	TEST CONDITION	REQUIREMENT
9.4	Resistance to soldering heat	Tin-Lead Process (TMD or SMD Type) Soldering time: 5 ± 0.5 second Soldering pot: 260 <sup>+0</sup> <sub>-5</sub> °C Lead-Free Process (SMD Type) Refer recommended IR temperature profile	No damage
9.5	Hand Soldering Method	Use a soldering 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±5 °C 3s	No damage
9.6	Heat aging	105 ± 2°C , 96 hours	No damage
9.7	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
9.8	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
9.9	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

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11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste



11.2 Using Lead-Free Solder Paste

