

# **ENGINEERING DEPT. REVISIONS** | ECNT120076

### **PRODUCT SPECIFICATION** 1.27mm Pitch Male & Female Connector

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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 EIA - 364 Test methods for electrical connectors

## 3. APPLICABLE SERIES NO.: CA33/CA34/CA35 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 : <u>Eisley</u> APPROVED : <u>Sun</u> VERIFIED : <u>Eric</u>.



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### 7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage	CA33 Series	1.2 A 250V AC/DC
		CA34 Series	1.2 A 250V AC/DC
		CA35 SMT Vertical Type	1.2 A 250V AC/DC
		CA35 DIP Vertical Type	1.2 A 250V AC/DC
		CA35 DIP Right angle Type	1.2 A 250V AC/DC
7.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 15 m $\Omega$
7.3	Dielectric strength	When applied AC 750 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 $\Omega$

#### 8. MECHANICAL PERFORMANCE:

8.1	ITEM Pin retention force	TEST CONDITION Push pin form insulator base at speed 25±3	REQUIREMENT 0.5 Kgf. min./ per	
		mm per minute	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	

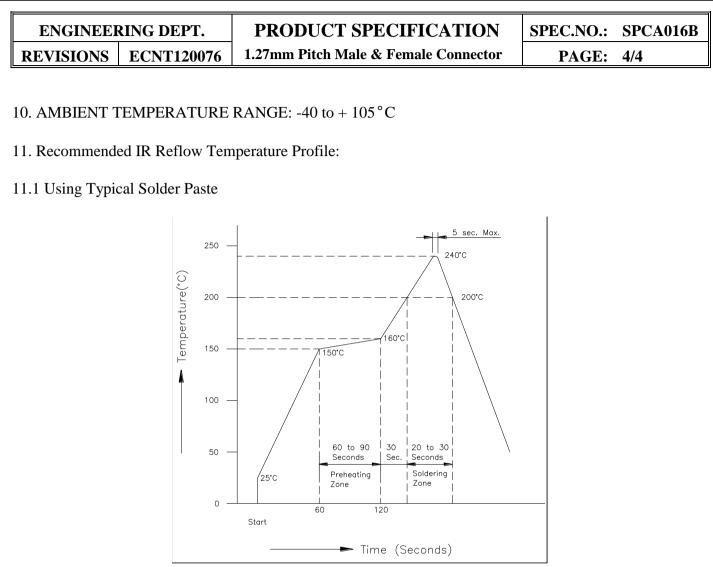
## 9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Maximum Current at 105°C	105 °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	Soldering time: $3 \pm 0.5$ second Soldering pot: 245 ° ± 5 ° C	Minimum: 90% of immersed area



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		ITEM	TEST CONDITION	REQUIREMENT	
9.4		e to soldering	Lead-Free Process (SMD Type)	No damage	
	heat		Soldering time: 20 second Max.		
			Soldering pot: 250~260°C Refer recommended IR temperature profile		
9.5	Hand Saldaring Mathad			No damaga	
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 : 380±5 °C 3s	No damage	
9.6	Heat aging	2	$105 \pm 2$ °C , 96 hours	No damage	
9.7	Humidity		$40\pm2^{\circ}\mathrm{C}$ , 90-95% RH , 96 hours	Appearance: No damage	
			measurement must be taken within 30 min. after tested	Contact resistance:	
				Less than twice of initial Dielectric strength:	
				To pass para 7-3	
9.8	Temperature cycling		One cycle consists of :	Appearance: No damage	
	1		(1) -40 +0/-3 °C , 30 min.	Contact resistance:	
			(2)Room temp. 10-15 min.	Less than twice of initial	
			(3) 105 +3/-0 °C, 30 min.		
			(4)Room temp. 10-15 min.		
9.9	Salt spray		Temperature: $35 \pm 3$ °C	Appearance:	
			Solution: $5 \pm 1\%$	No damage on function	
			Spray time: $48 \pm 4$ hours	Contact resistance:	
			(Stamping before plated)	Less than twice of initial	
			Spray time: $24 \pm 4$ 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)		





11.2 Using Lead-Free Solder Paste

