



ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCI121A
REVISIONS	ECNT114294	For CI87 Connectors	PAGE: 1/4

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
J-STD-020	Resistance to soldering Temperature for through hole Mounted Devices
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: **CI87 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

0.8 mm (.031") ~ 1.6 mm (.063")



REVIEWED : Eisley APPROVED : Eisley VERIFIED : Clark .



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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	
7.1	Rated current and voltage		3A(AWG#26) 30V AC (r.m.s.)
7.2	Contact resistance	Dry circuit of DC 20 mV max. 100 mA max.	Less than 20 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 250 V between adjacent terminal or ground	More than 500 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Wire size	Specified wire size	Accepts AWG#26~#28	
8.2	Terminal crimp Tensile strength	When crimped AWG#26 size wire When crimped AWG#28 size wire	More than 2.0 Kgf More than 1.3 Kgf	
8.3	Terminal retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 0.60 Kgf	
8.4	Pin retention force	Push pin from insulator base at speed 25 ±3 mm per minute	More than 0.30 Kgf	
8.5	Mating & Unmating force	Speed 25± 3 mm per minute	Mating	Less than 6.0 kgf
			Unmating	More than 0.8 kgf
8.6	Durability	Connector shall be subjected to 30 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.



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	ITEM	TEST CONDITION	REQUIREMENT
9.3	Solder ability	Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: $245 \pm 5^{\circ}\text{C}$	Minimum: 95% of immersed area
9.4	Resistance to soldering heat	Lead-Free Process for SMT Type: Refer Reflow temperature profile(11.1)	No damage
9.5	Heat aging	$85 \pm 2^{\circ}\text{C}$, 96 hours	No damage
9.6	Cold resistance	$-40 \pm 2^{\circ}\text{C}$, 96 hours	Appearance: No damage Contact resistance: Less than twice of initial
9.7	Humidity	$40 \pm 2^{\circ}\text{C}$, 90-95% RH, 96 hours measurement must be taken within 30 min. after tested	Appearance: No damage Contact resistance: Less than twice of initial
9.8	Temperature cycling	One cycle consists of : (1) $-55^{+0}_{-3}^{\circ}\text{C}$, 30 min. (2)Room temp. 10-15 min. (3) $85^{+3}_{-0}^{\circ}\text{C}$, 30 min. (4)Room temp. 10-15 min. Total cycle: 5 cycle	Appearance: No damage Contact resistance: Less than twice of initial
9.9	Salt spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: 48 ± 4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 7-3
9.10	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 : $380 \pm 10^{\circ}\text{C}$ 3s	No damage

10. AMBIENT TEMPERATURE RANGE: -40 to $+85^{\circ}\text{C}$



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11. Recommended IR Reflow Temperature Profile:

11.1 Using Lead-Free Solder Paste

