瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCI121B
REVISIONS	ECNT121010	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
EIA - 364	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″)

CVILUX CORP
2021.01.07
ISSUED

REVIEWED : Eisley APPROVED : Sun VERIFIED : Eric .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
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 ± 5°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± 2°C, 96 hours	No damage
9.6	Cold resistance	-40± 2°C, 96 hours	Appearance: No damage Contact resistance: Less than twice of initial
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
9.8	Temperature cycling	One cycle consists of : (1) $-55\ ^{+0}_{-3}$ °C , 30 min. (2)Room temp. 10-15 min. (3) $85\ ^{+3}_{-0}$ °C , 30 min. (4)Room temp. 10-15 min. Total cycle: 5 cycle	Appearance: No damage Contact resistance: Less than twice of initial

	ITEM	TEST CONDITION	REQUIREMENT
9.9	Salt spray	Temperature: 35 ± 3°C Solution: 5 ± 1% Spray time: 48 ± 4 hours (Stamping before plated) Spray time: 24 ± 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)	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±10℃ 3s	No damage

10. AMBIENT TEMPERATURE RANGE: -40 to + 85°C
11. Recommended IR Reflow Temperature Profile:
    11.1 Using Lead-Free Solder Paste