瀚荃股份有限公司
CviLux Corporation

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCI094C
REVISIONS	ECNT120150	For CI08 Series Connector System	PAGE: 1/6

1. SCOPE:
This specification contains the test requirement of subject connectors when tested under the condition and procedure with terminals crimped on the specified maximum size wire

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: CI08 SERIES
(Header: P/N:CI08****HR*-NH)

4. SHAPE, CONSTRUCTION AND DIMENSIONS
See attached drawings

5. MATERIALS
See attached drawings

6. ACCOMMODATED P.C.BOARD
6.1 Thickness: 1.6mm(.063")
6.2 P.C. Board Layout: See attached drawings

CviLux Corp
2023.03.02
ISSUED

REVIEWED : Eisley APPROVED : Sun VERIFIED : Jessie .

7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 200V AC (r.m.s.) (AWG#26) 2.5A 200V AC (r.m.s.) (AWG#28) 1.5A 200V AC (r.m.s.) (AWG#30)
7.2	Contact resistance	Dry circuit of DC 20 mV max. , 10 mA max.(EIA-364-23)	Less than 25 mΩ
7.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal(EIA-364-20)	No discharge, flashover or breakdown Current leakage: 1mA Max.
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground (EIA-364-21)	More than 1000 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Mating & Un-mating force	Insert and withdraw connector at speed of 25 ± 3 mm per minute	See Item 11
8.2	Pin retention force	Push pin from insulator base at speed 25± 3 mm per minute	More than 0.5 Kgf
8.3	Durability	The sample should be mounted on the tester and fully mated and unmated 60 cycles specified at the rate of 25.4±3mm/min.(EIA-364-09)	Contact resistance: To pass Para 7.2

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Temperature rise	Mate connector: measure the temperature rise at rated current. The ambient condition is still air at 25°C (UL 498)	The temperature rise above ambient shall not exceed 30°C
9.2	Vibration	The electrical load condition shall be 100mA max. for all contacts. 1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions (EIA-364-28)	Appearance: No damage Discontinuity: 1 micro second max.

	ITEM	TEST CONDITION	REQUIREMENT
9.3	Shock(Mechanical)	Subject mated connectors to 50G's (peak value) half-sine shock pulses of 11 milliseconds duration. Three shock in each direction shall be applied along the three mutually perpendicular axes of the test specimen (18 shocks). The electrical load condition shall be 100mA maximum for all contacts.	Discontinuity: 1 micro second max.
9.4	Solder ability	**DIP Type Lead-Free Process:** Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C **SMT Type Lead-Free Process:** Subject the test area of contacts into the flux for 5~10Sec. And then into solder bath. Soldering time: 3 ± 0.5 second Soldering temperature: 245 ± 5°C (EIA-364-52)	Minimum: 90% of immersed area
9.5	Resistance to soldering heat	**DIP Type Lead-Free Process** Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C **SMT Type Lead-Free Process:** Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(12.2)	No damage
9.6	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

	ITEM	TEST CONDITION	REQUIREMENT
9.7	Heat aging	85± 2°C , 96 hours(EIA-364-17)	Appearance: No damage Contact resistance: To pass Para 7.2 Dielectric strength: To pass Para 7.3 Insulation resistance: To pass Para 7.4
9.8	Cold aging	-40 ± 2°C , 96 hours	Appearance: No damage Contact resistance: To pass Para 7.2
9.9	Humidity	40°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested (EIA-364-31)	Appearance: No damage Contact resistance: To pass Para 7.2 Dielectric strength: To pass Para 7.3 Insulation resistance: To pass Para 7.4
9.10	Temperature cycling	Five cycle consists of :(EIA-364-32) (1)-40 $^{+0}_{-3}$ °C , 30 min. (2)Room temp. 10-15 min. (3)85 $^{+3}_{-0}$ °C , 30 min. (4)Room temp. 10-15 min.	Appearance: No damage Contact resistance: To pass Para 7.2 Dielectric strength: To pass Para 7.3 Insulation resistance: To pass Para 7.4

9.11	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)	Appearance: No damage Contact resistance: To pass Para 7.2

10. AMBIENT TEMPERATURE RANGE: -40 to + 85°C

11.Mating and Un-mating Force:

PIN No.	Mating((kgf) max.)	Un-mating((kgf)min.)	60th Un-mating((kgf)min.)
2	2.00	0.30	0.20
3	2.00	0.30	0.20
4	2.00	0.30	0.20
5	2.50	0.40	0.30
6	2.50	0.40	0.30
7	3.00	0.50	0.40
8	3.00	0.50	0.40
9	3.50	0.60	0.50
10	3.50	0.60	0.50
11	4.00	0.70	0.60
12	4.00	0.70	0.60

12. Recommended IR Reflow Temperature Profile:

12.1 Using Lead-Free Solder Paste