瀚荃股份有限公司
CviLux Corporation

CVILUX
2020.04.16
ISSUED

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCB007F
REVISIONS	ECNT120076	For CBC1 Series Connector	PAGE: 1/5

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. : **CBC1 Series**

4. SHAPE,CONSTRUCTION AND DIMENSIONS
See attached drawings

5. MATERIALS
See attached drawings

6. ACCOMMODATED P.C.BOARD
6.1 Thickness: 0.8 mm (.031″) ~ 1.6 mm (.063″)
6.2 P.C. Board Layout: See attached drawings

REVIEWED : Eisley APPROVED : Eisley VERIFIED : Michelle .

7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		1.5A 250V 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 600 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 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute form housing	More than 200 gram
8.2	Single contact insertion force	Measure force to insertion using ∅0.46 mm test pin at speed 25± 3 mm per minute	100 gram max.
8.3	Single contact withdrawal force	Measure force to withdrawal using ∅0.46 mm test pin at speed 25± 3 mm per minute	15 gram min.
8.4	Durability	Connector shall be subjected to 100 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

9. ENVIRONMENTAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	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
9.2	Solder ability	**DIP Type Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C **DIP Type Lead-Free Process:** Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C **SMT Type Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C **SMT Type Lead-Free Process:** Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
9.3	Resistance to soldering heat	**DIP Type Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5°C **DIP Type Lead-Free Process (JESD22-B106C):** Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C **SMT Type Tin-Lead Process:** Refer Reflow temperature profile(11.1) Soldering time: 10 second Max. Soldering pot: 230 ± 5 °C **SMT Type Lead-Free Process:** Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(11.2)	No damage
9.4	Heat aging	125± 2°C, 96 hours	No damage

	ITEM	TEST CONDITION	REQUIREMENT
9.5	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
9.6	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.	Appearance: No damage Contact resistance: Less than twice of initial
9.7	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

10. AMBIENT TEMPERATURE RANGE: -55 ～ +125°C

11. Recommended IR Reflow Temperature Profile:

11.1 Using Typical Solder Paste

11.2 Using Lead-Free Solder Paste