瀚荃股份有限公司
CviLux Corporation

CVILUX
2020.06.04
ISSUED

ENGINEERING DEPT.		PRODUCT SPECIFICATION For Solder & Straight Dip D-Sub Connector of system CD53	SPEC.NO.: SPCD029C
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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
SS-00254	Test methods for electronic components ,LEAD-FREE soldering Part design standards

3. APPLICABLE SERIES NO.: **CD53 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS
   See attached drawings

5. MATERIALS
   See attached drawings

6. ACCOMMODATED P.C.BOARD
   1.6 mm (.063″)

REVIEWED : Eisley APPROVED : Sun VERIFIED : Michelle .

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7. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
7.1	Rated current and voltage		3A 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 1000 V 1 minute between adjacent terminal	No change
7.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 5000 MΩ

8. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 4.0 Kgf
8.2	Single contact insertion force	Measure force to insertion using ∅ 1.04 mm test pin at speed 25± 3 mm per minute	340 gram max.
8.3	Single contact withdrawal force	Measure force to withdrawal using ∅ 0.99 mm test pin at speed 25± 3 mm per minute	28 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	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.
9.3	Solder ability	**Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C **Lead-Free Process:** Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area

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	ITEM	TEST CONDITION	REQUIREMENT
9.4	Resistance to soldering heat	**Tin-Lead Process:** Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5°C **Lead-Free Process** Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C	No damage
9.5	Heat aging	105 ± 2°C , 96 hours	No damage
9.6	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
9.7	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
9.8	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: -40 to + 105°C

11. MATING FORCE AND UNMATING FORCE:

Unit: Kgf

No. of Circuits	Mating Force (Initial max.)	Unmaking Force (Initial max.)
9	4.6	3.5
15	8.1	6.4
25	10.5	7.7
37	14.1	9.9
50	18.5	12.8