瀚荃股份有限公司
CviLux Corporation

CVILUX
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ISSUED

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.: SPCF024I
REVISIONS	ECNT120078	For CF20 Series Connector System	PAGE: 1/5

1. SCOPE:
This specification contains the test requirement of subject connectors when tested under the condition and inserted on the specified size FPC and FFC

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.: **CF20 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS
See attached drawings

5. MATERIALS
See attached drawings

6. ACCOMMODATED P.C.BOARD
6.1 Thickness: 0.5 mm (.020″) ~ 2.0 mm (.079")
6.2 P.C. Board Layout: See attached drawings

7. ACCOMMODATED FPC/FFC THICKNESS
0.3 +0.04/-0.01 mm (.012+.002/-0″)

REVIEWED : Eisley APPROVED : Sun VERIFIED : Michelle

8. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Rated current and voltage		For 0.5mm Pitch: 0.4A max. 50V AC/DC max. For 1.0mm Pitch: 0.4A max. 100V AC/DC max.
8.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 30 mΩ
8.3	Dielectric strength	For 0.5mm Pitch: When applied AC 250 V 1 minute between adjacent terminal For 1.0mm Pitch: When applied AC 500 V 1 minute between adjacent terminal	No change
8.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 100 MΩ

9. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
9.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	More than 0.2 Kgf(1.96N)
9.2	FFC / FPC withdrawal force (Reference data)	Measure force to withdrawal using 0.30 mm thickness FPC / FFC at speed 25± 3 mm per minute	Standard: (0.02× no. of Contacts) Kgf min. (0.196× no. of Contacts) N min.
9.3	Separation force of slider and base	Pull out the slider from the base at speed 25± 3 mm per minute	More than 2.0 Kgf(19.6N)
9.4	Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	Contact resistance: Less than twice of initial

10. ENVIRONMENTAL PERFORMANCE:

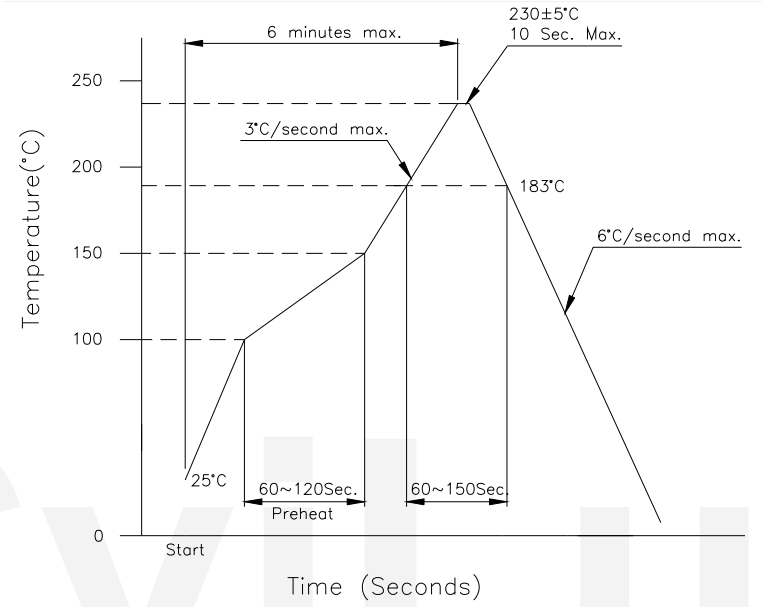
	ITEM	TEST CONDITION	REQUIREMENT
10.1	Temperature rise	Then carried the rated current	30°C max.
10.2	Vibration	1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions	Appearance: No damage Discontinuity: 1 micro second max.
10.3	Solder ability	**Tin-Lead Process:** Soldering time: 5 ± 0.5 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
10.4	Resistance to soldering heat	**Tin-Lead Process** Refer Reflow temperature profile(12.1) Soldering time: 10 second Max. Soldering pot: 230 ± 5 °C **Lead-Free Process** Refer Reflow temperature profile(12.2) Soldering time: 20 second Max. Soldering pot: 250~260°C	No damage
10.5	Heat aging	85 ± 2°C , 96 hours	No damage
10.6	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 8-3
10.7	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

	ITEM	TEST CONDITION	REQUIREMENT
10.8	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

11. AMBIENT TEMPERATURE RANGE: -25 to + 85 °C

12. Recommended IR Reflow Temperature Profile:

12.1 Using Typical Solder Paste



12.2 Using Lead-Free Solder Paste