

<b>ENGINEERING DEPT.</b>		<b>PRODUCT SPECIFICATION</b> <b>For CF06 Series Connector System</b>	<b>SPEC.NO.: SPCF058C</b>
<b>REVISIONS</b>	<b>ECNT120078</b>		<b>PAGE: 1/5</b>

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
EAI - 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.: **CF06 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.

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**8. ELECTRICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Rated current and voltage		0.5A max. 50V AC/DC max.
8.2	Contact resistance	Dry circuit of DC 20 mV max. , 100 mA max.	Less than 20 mΩ
8.3	Dielectric strength	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 0.40 Kgf
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	See Item 12.
9.3	Durability	Connector shall be subjected to 10 cycles of insertion and withdrawal	Contact resistance: Less than 40 mΩ

**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 Contact resistance : Less than 40 mΩ Discontinuity: 1 micro second max.
10.3	Solder ability	Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area

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	ITEM	TEST CONDITION	REQUIREMENT
10.4	Resistance to soldering heat	Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(13.1)	No damage
10.5	Hand Sodering Method	Use a soldering iron that has a sufficient head capacity and stability of temperature. The tip of iron should be shaped so as not to touch the part body directly. Temperature : 350±5°C 5 Sec. Max.	No damage
10.6	Heat aging	85 ± 2°C , 96 hours	Appearance: No damage Contact resistance: Less than 40 mΩ
10.7	Cold Resistance	-40 ± 3°C , 96 hours	Appearance: No damage Contact resistance: Less than 40 mΩ
10.8	Humidity	40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 60 min. after tested	Appearance: No damage Contact resistance: Less than 40 mΩ Dielectric strength: To pass para 8-3 Insulation resistance: More than 20 MΩ
10.9	Temperature cycling	One cycle consists of : (1) -55 <sup>+0</sup> <sub>-3</sub> °C , 30 min. (2) Room temp. 10-15 min. (3) 85 <sup>+3</sup> <sub>-0</sub> °C , 30 min. (4) Room temp. 10-15 min. Connector shall be mated with applicable FPC/FFC, and subjected to the conditions for 5 cycles.	Appearance: No damage Contact resistance: Less than 40 mΩ

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10.10	Salt spray	<p>Temperature: <math>35 \pm 3^{\circ}\text{C}</math>  Solution: <math>5 \pm 1\%</math>  Spray time: <math>48 \pm 4</math> hours  (Stamping before plated)  Spray time: <math>24 \pm 4</math> hours  (Stamping after plated)</p> <p>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.</p> <p>The specimens shall be suspended from the top using waxed twine, string or nylon thread.</p> <p>The test only define the plating area, without plating area (as copper cross section) will not be defined.</p> <p>(EIA 364-26B / MIL-STD-202 Method 101)</p>	<p>Appearance: No damage  Contact resistance:  Less than <math>40\text{ m}\Omega</math></p>
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11. AMBIENT TEMPERATURE RANGE:  $-20$  to  $+80^{\circ}\text{C}$

12. FFC /FPC withdrawal force

PIN No.	Unmating(kgf min.)
4	0.2 Kgf
5	
6	
7	0.3 Kgf
8	
9	
10	0.5 Kgf
11	
12	
13	
14	
15	

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13. Recommended IR Reflow Temperature Profile:

13.1 Using Typical Solder Paste

