

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF16 Series Connector System	SPEC.NO.: SPCF017H
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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.: **CF16 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 1.6 mm (.063")
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		0.5 A 100V AC (r.m.s.)
8.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 30 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 500 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 0.3 Kgf
9.2	FPC / FFC withdrawal force (Reference data)	Measure force to withdrawal using 0.30 mm thickness FPC/FFC at speed 25 ± 3 mm per minute	$50 \times$ No. of Circuits gram Min
9.3	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: $230 \pm 5^\circ\text{C}$ Lead-Free Process: Soldering time: 3 ± 0.5 second Soldering pot: $245 \pm 5^\circ\text{C}$	Minimum: 90% of immersed area

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	ITEM	TEST CONDITION	REQUIREMENT
10.4	Resistance to soldering heat	<p>DIP Type Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: 240 ± 5°C</p> <p>DIP Type Lead-Free Process: Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C</p> <p>SMT Type Tin-Lead Process: Refer Reflow temperature profile(12.1) Soldering time: 10 second Max. Soldering pot: 230 ± 5 °C</p> <p>SMT Type Lead-Free Process: Soldering time: 20 second Max. Soldering pot: 250~260°C Refer Reflow temperature profile(12.2)</p>	No damage
10.5	Heat aging	105 ± 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

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	ITEM	TEST CONDITION	REQUIREMENT
10.8	Salt spray	<p>Temperature: $35 \pm 3^{\circ}\text{C}$</p> <p>Solution: $5 \pm 1\%$</p> <p>Spray time: 48 ± 4 hours (Stamping before plated)</p> <p>Spray time: 24 ± 4 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</p> <p>Contact resistance: Less than twice of initial</p>

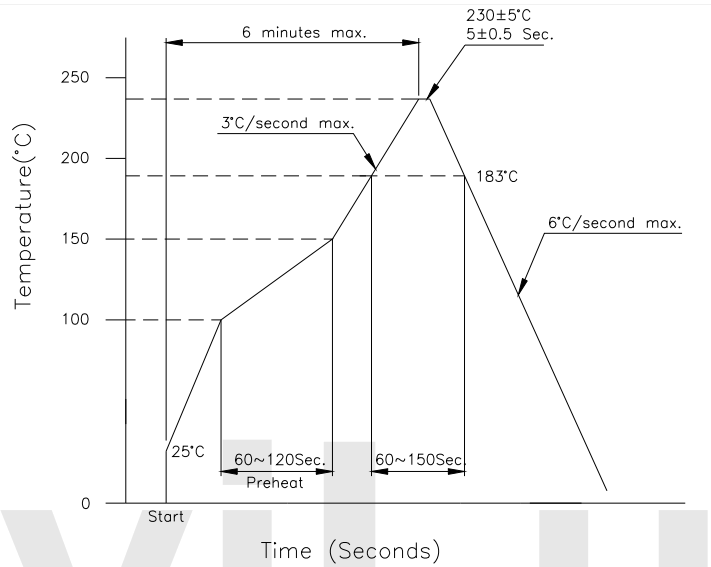
11. AMBIENT TEMPERATURE RANGE: -40 to $+105^{\circ}\text{C}$



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12. Recommended IR Reflow Temperature Profile:

12.1 Using Typical Solder Paste



12.2 Using Lead-Free Solder Paste

