

ENGINEERING DEPT.	PRODUCT SPECIFICATION For CF27 Series Connector System	SPEC.NO.: SPCF047A PAGE: 1/4
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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
MIL - STD - 1344	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.: CF27 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 ± 0.03 mm (.012±.001")



REVIEWED : David APPROVED : Eisley VERIFIED : Hank .

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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. , 10 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 50 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 0.05 Kgf
9.2	FFC / FPC insert force (Reference data)	Measure force to insert using 0.30 mm thickness FPC / FFC at speed 25± 3 mm per minute	(0.1× no. of Contacts) Kgf max.
9.3	FFC / FPC withdrawal force (Reference data)	Measure force to withdrawal using 0.30 mm thickness FPC / FFC at speed 25± 3 mm per minute	(0.035× no. of Contacts) Kgf min.
9.4	Durability	Connector shall be subjected to 20 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(12.1)	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 : 370~400°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	60 ± 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 ⁺⁰ ₋₃ °C , 30 min. (2)Room temp. 10-15 min. (3) 85 ⁺³ ₋₀ °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
10.10	Salt spray	Temperature: 35 ± 2°C Solution: 5 ± 1% Spray time: 48 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than 40 mΩ

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

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12. Recommended IR Reflow Temperature Profile:
12.1 Using Typical Solder Paste

