

ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.:	SPCF058B
REVISIONS	ECNT114284	For CF06 Series Connector System	PAGE:	1/4

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 - 202 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.: CF06 Series

4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: $0.5 \text{ mm} (.020'') \sim 2.0 \text{ mm} (.079'')$ 6.2 P.C. Board Layout: See attached drawings

7. ACCOMMODATED FPC/FFC THICKNESS

 0.3 ± 0.03 mm (.012±.001")



REVIEWED: Eisley APPROVED: Eisley VERIFIED: Sandy .



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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 $100 \text{ M}\Omega$

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 $40 \text{ m}\Omega$

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	Appearance: No damage
		2 hours for X, Y and Z directions	Contact resistance : Less than $40 \text{ m}\Omega$
			Discontinuity:
			1 micro second max.
10.3	Solder ability	Soldering time: 3 ± 0.5 second	Minimum:
		Soldering pot: 245 ± 5°C	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 $40 \text{ m}\Omega$
10.7	Cold Resistance	-40 ± 3°C , 96 hours	Appearance: No damage Contact resistance: Less than $40 \text{ m}\Omega$
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 $40 \text{ m}\Omega$ Dielectric strength: To pass para $8\text{-}3$ Insulation resistance: More than $20 \text{ M}\Omega$
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 $40 \text{ m}\Omega$

11. AMBIENT TEMPERATURE RANGE: -20 to +80°C

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12. FFC /FPC withdrawal force

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

13. Recommended IR Reflow Temperature Profile:

13.1 Using Typical Solder Paste

