

<b>ENGINEERING</b> <b>DEPT.</b>	<b>PRODUCT SPECIFICATION</b> <b>For CF30 Series Connector System</b>	<b>SPEC.NO.: SPCF031A</b> <b>PAGE: 1/4</b>
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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

2. APPLICABLE STANDARDS:

MIL - STD - 202                      Methods for test of connectors for electronic equipment  
MIL - STD - 1344                    Test methods for electrical connectors

3. APPLICABLE SERIES NO.: CF30 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 THICKNESS

0.2 ± 0.03 mm (.008±.001")



REVIEWED :   ALEX   APPROVED :   DAVID   VERIFIED :   EISLEY   .

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**8. ELECTRICAL PERFORMANCE:**

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Rated current and voltage		0.3A max. 50V AC/DC max.
8.2	Contact resistance	Dry circuit of DC 20 mV max. , 10 mA max.	Less than 50 mΩ
8.3	Dielectric strength	When applied AC 250 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 0.08 Kgf ( 0.8N )
9.2	FPC withdrawal force (Reference data)	Measure force to withdrawal using 0.20 mm thickness FPC at speed 25± 3 mm per minute	(0.012× no. of Contacts) Kgf min. (0.12× no. of Contacts) N min.
9.3	Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	No damage Contact resistance: Less than 100 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 Discontinuity: 1.0 micro second max. Contact resistance: Less than 100 mΩ
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	Refer recommended IR temperature profile	Appearance: No damage
10.5	Hand Soldering Method	Use a soldering iron that has a sufficient head capacity and high stability of temperature. The tip of the iron should be shaped so as not to touch the part body directly. Temperature : 380±10°C 5 Sec. Max.	Appearance: No damage
10.6	Heat aging	Mate applicable FPC and expose to 85± 2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1 to 2 hours, after which the specified measurements shall be performed.	Appearance: No damage Contact resistance: Less than 100 mΩ
10.7	Humidity	Mate applicable FPC and expose to 40± 2°C ,relative humidity 90 to 95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1 to 2 hours, after which the specified measurements shall be performed.	Appearance: No damage Contact resistance: Less than 100 mΩ Dielectric strength: To pass para 8-3 Insulation resistance: 20 MΩ Min.
10.8	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.	Appearance: No damage Contact resistance: Less than 100 mΩ
10.9	Salt spray	Temperature: 35 ± 3°C Solution: 5 ± 1% Spray time: 48 ± 4 hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than 100 mΩ

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

12. Recommended IR Reflow Temperature Profile(Lead-Free):

