



ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF30 Series Connector System	SPEC.NO.: SPCF031B
REVISIONS	ECNT120078		PAGE: 1/5

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

EIA-364

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 : Eisley APPROVED : Sun VERIFIED : Michelle .



ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF30 Series Connector System	SPEC.NO.: SPCF031B
REVISIONS	ECNT120078		PAGE: 2/5

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: $245 \pm 5^\circ\text{C}$	Minimum: 90% of immersed area



ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF30 Series Connector System	SPEC.NO.: SPCF031B
REVISIONS	ECNT120078		PAGE: 3/5

	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 : $380\pm 10^{\circ}\text{C}$ 5 Sec. Max.	Appearance: No damage
10.6	Heat aging	Mate applicable FPC and expose to $85\pm 2^{\circ}\text{C}$ 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 m Ω
10.7	Humidity	Mate applicable FPC and expose to $40\pm 2^{\circ}\text{C}$,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 m Ω Dielectric strength: To pass para 8-3 Insulation resistance: 20 M Ω Min.
10.8	Temperature cycling	One cycle consists of : (1) $-55_{-3}^{+0}^{\circ}\text{C}$, 30 min. (2) Room temp. 10-15 min. (3) $85_{-0}^{+3}^{\circ}\text{C}$, 30 min. (4) Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than 100 m Ω

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF30 Series Connector System	SPEC.NO.: SPCF031B
REVISIONS	ECNT120078		PAGE: 4/5

	ITEM	TEST CONDITION	REQUIREMENT
10.9	Salt spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: 48 ± 4 hours (Stamping before plated) Spray time: 24 ± 4 hours (Stamping after plated) 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. The specimens shall be suspended from the top using waxed twine, string or nylon thread. The test only define the plating area, without plating area (as copper cross section) will not be defined. (EIA 364-26B / MIL-STD-202 Method 101)	Appearance: No damage Contact resistance: Less than $100\text{ m}\Omega$

11. AMBIENT TEMPERATURE RANGE: -25 to $+85^{\circ}\text{C}$

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF30 Series Connector System	SPEC.NO.: SPCF031B
REVISIONS	ECNT120078		PAGE: 5/5

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

