

ENGINEERING DEPT.		PRODUCT SPECIFICATION For CF25 Series Connector System	SPEC.NO.: SPCF030D
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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.: **CF25 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 +0.04/-0.01 mm (.012+.002/-0")



REVIEWED : Eisley APPROVED : Clark VERIFIED : Sandy .

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#### 8. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT
8.1	Rated current and voltage		For 0.5mm Pitch: 0.5A max. /50V AC/DC max. For 1.0mm Pitch: 1.0A max. 100V AC/DC max.
8.2	Contact resistance	Dry circuit of DC 20 mV max. , 1 mA max.	Less than 50 mΩ
8.3	Dielectric strength	For 0.5mm Pitch: When applied AC 150 V 1 minute between adjacent terminal  For 1.0mm Pitch: When applied AC 500 V 1 minute between adjacent terminal	No change
8.4	Insulation resistance	When applied DC 100 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 0.2 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	(0.07× no. of Contacts) Kgf min.
9.3	Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	No damage 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.

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10.3	Solder ability	Soldering time: $3 \pm 0.5$ second Soldering pot: $245 \pm 5^{\circ}\text{C}$	Minimum: 90% of immersed area
10.4	Resistance to soldering heat	Soldering time: 20 second Max. Soldering pot: $250 \sim 260^{\circ}\text{C}$	No damage
10.5	Heat aging	$105 \pm 2^{\circ}\text{C}$ , 96 hours	No damage
10.6	Humidity	$40 \pm 2^{\circ}\text{C}$ , 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) $-55^{+0}_{-3}^{\circ}\text{C}$ , 30 min. (2) Room temp. 10-15 min. (3) $85^{+3}_{-0}^{\circ}\text{C}$ , 30 min. (4) Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
10.8	Salt spray	Temperature: $35 \pm 3^{\circ}\text{C}$ Solution: $5 \pm 1\%$ Spray time: $48 \pm 4$ hours Measurement must be taken after water rinse	Appearance: No damage Contact resistance: Less than twice of initial

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

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

