

# ENGINEERING DEPT. REVISIONS ECN11064

## **PRODUCT SPECIFICATION** For CF25 Series Connector System

SPEC.NO.: SPCF037B

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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 DIP Type Series
- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD6.1 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 : <u>Eisley</u> APPROVED : <u>Clark</u> VERIFIED : <u>Sandy</u>.



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8. EL	3. ELECTRICAL PERFORMANCE:				
	ITE	M	TEST CONDITION	REQUIREMENT	
8.1	Rated curren voltage	nt and		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 resi	stance	Dry circuit of DC 20 mV max. , 1 mA max.	Less than 50 m $\Omega$	
8.3	Dielectric st	6	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 re		When applied DC 100 V between adjacent terminal or ground	More than 500 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 0.2 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 abilit	-	Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
10.4	Resistance to soldering he	D S	Soldering pot: $245 \pm 5^{\circ}C$ Soldering pot: $260 \pm 5^{\circ}C$	No damage
10.5	Heat aging		105 ± 2°C , 96 hours	No damage
10.6	Humidity	1	40 ± 2°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		One cycle consists of : (1) $-55_{-3}^{+0}$ °C , 30 min. (2)Room temp. 10-15 min. (3) $85_{-0}^{+3}$ °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 ± 3°C Solution: 5 ± 1% Spray time: 48 ± 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°C