

# ENGINEERING DEPT. REVISIONS ECN11064

## PRODUCT SPECIFICATION For CF12 Series Connector System

SPEC.NO.: SPCF044B PAGE: 1/3

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	

## 3. APPLICABLE SERIES NO.: CF12\*\*1\*0T0-LF

- 4. SHAPE, CONSTRUCTION AND DIMENSIONS See attached drawings
- 5. MATERIALS See attached drawings
- 6. ACCOMMODATED P.C.BOARD6.1 Thickness: 1.6 mm (.063")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>.



# ENGINEERING DEPT.REVISIONSECN11064

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SPEC.NO.: SPCF044B

PAGE: 2/3

## 8. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Rated current and voltage		1 A 200V AC (r.m.s.)	
8.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 m $\Omega$	
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 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 0.5 Kgf (4.9 N)
9.2	FPC / FFC withdrawal force (Reference data)	Measure force to withdrawal using 0.30 mm thickness FPC/FFC at speed 25± 3 mm per minute	(25 gramx No. of Circuits) Min (0.245N x No. of Circuits) Min
9.3	Durability	onnector shall be subjected to 5 cycles of sertion and withdrawalContact 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.
10.3	Solder ability	Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C	Minimum: 90% of immersed area
10.4	Resistance to soldering heat	Soldering time: 5 ± 0.5 second Soldering pot: 260 ± 5°C	No damage



ENGINEERING DEPT.		PRODUCT SPECIFICATION	SPEC.NO.:	SPCF044B
REVISIONS	ECN11064	For CF12 Series Connector System	PAGE:	3/3

	ITEM	TEST CONDITION	REQUIREMENT
10.5	Heat aging	$105 \pm 2^{\circ}C$ , 96 hours	No damage
10.6	Humidity	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 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.	Appearance: No damage Contact resistance: Less than twice of initial
10.8	Salt spray	Temperature: $35 \pm 3 \circ C$ 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°C