

ENGINEERING DEPT. REVISIONS ECN11064

PRODUCT SPECIFICATION For CF08 Series Connector System

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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.: CF08 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 : <u>David</u> APPROVED : <u>Eisley</u> VERIFIED : <u>Sandy</u>.



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8. ELECTRICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
8.1	Rated current and voltage		1A max. 100V AC/DC max.	
8.2	Contact resistance	Dry circuit of DC 20 mV max., 100 mA max.	Less than 20 m Ω	
8.3	Dielectric strength	When applied AC 500 V 1 minute between adjacent terminal (Leakage current not exceed 0.5 mA)	No change	
8.4	Insulation resistance	When applied DC 500 V between adjacent terminal or ground	More than 500 M Ω	

9. MECHANICAL PERFORMANCE:

	ITEM	TEST CONDITION	REQUIREMENT	
9.1	Contact retaining force in insulator	Retention speed 25± 3 mm per minute from housing	0.5 Kgf Min.(Tin Plated) 0.4 Kgf Min.(Gold Plated)	
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	40× no. of Contacts gram min.	
9.3	Durability	Connector shall be subjected to 20 cycles of insertion and withdrawal	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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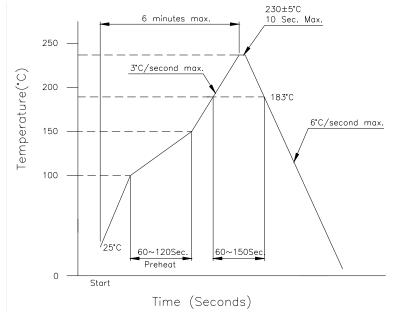
	ITEM	TEST CONDITION	REQUIREMENT
10.3	Solder ability	Tin-Lead Process:	Minimum:
		Soldering time: 5 ± 0.5 second	90% of immersed area
		Soldering pot: 230 ± 5°C	
		Lead-Free Process:	
		Soldering time: 3 ± 0.5 second	
		Soldering pot: 245 ± 5°C	
10.4	Resistance to soldering	Tin-Lead Process:	No damage
	heat	Refer Reflow temperature profile(12.1)	
		Soldering time: 10 second Max.	
		Soldering pot: $230 \pm 5 \text{ °C}$	
		Lead-Free Process:	
		Refer Reflow temperature profile(12.2)	
		Soldering time: 20 second Max.	
		Soldering pot: 250~260°C	
10.5	Heat aging	85 ± 2°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) $-55 \begin{array}{c} +0 \\ -3 \end{array}$ °C , 30 min. (2)Room temp. 10-15 min.	Appearance: No damage Contact resistance: Less than twice of initial
		(2) Room temp. 10-15 mm. (3) 85^{+3}_{-0} °C , 30 min.	
		(4)Room temp. 10-15 min.	
10.8	Salt spray	Temperature: $35 \pm 3^{\circ}C$	Appearance: No damage
	1 2	Solution: $5 \pm 1\%$	Contact resistance:
		Spray time: 48 ± 4 hours	Less than twice of initial
		Measurement must be taken after water rinse	



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

- 12. Recommended IR Reflow Temperature Profile:
 - 12.1 Using Typical Solder Paste



12.2 Using Lead-Free Solder Paste

