



喬訊電子工業股份有限公司  
CHYAO SHIUNN ELECTRONIC INDUSTRIAL LTD.  
7FL., NO.17, LANE 3, SEC.1 CHUNG CHENG EAST RD.,  
TAMSHUI, TAIPEI, TAIWAN, R.O.C.  
TEL: 886-2-2629-9955 (REP) FAX: 886-2-2626-6677



<http://www.chyaoshiunn.com.tw> E-mail: [cs@chyaoshiunn.com.tw](mailto:cs@chyaoshiunn.com.tw)

Type Document	Product Specification	Revised / Edition	B
Date Issued	2014/02/10	Data Revised	2015/03/30
Subject: JS-0507-XX Pitch 0.50mm SMT Series ZIF FPC/FFC Connector			Issued By: Engineering Dept.

*This specification is referred to Pitch 0.50mm  
SMT series (ZIF) FPC/FFC connector.*

### **-INDEX-**

- 1.0 Product Name/Part Number & Drawing Number.
- 2.0 Construction/Dimensions/Material & Surface Finish.
- 3.0 Characteristic.
- 4.0 Specimen.
- 5.0 Applicable Standards
- 6.0 Mechanical Performance.
- 7.0 Electrical Performance.
- 8.0 Environmental Performance.
- 9.0 Remark



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1.0 Product Name/Part Number & Drawing Number:

Product Name		Part Number	Drawing Number
ZIF FPC/FFC Connector	Pitch 0.50mm	JS-0507-XX	JS-0507-XX

2.0 Construction/Dimensions/Material & Surface Finish:

Part Name		Material	Surface Finish
ZIF FPC/FFC Connector	Solder Nail	Brass	Matte Sn
	Contacts	Phos.Phor Bronze	Gold Plated
	Cover	PA9T	UL 94V-0
	Base	LCP	UL 94V-0

3.0 Characteristic:

Item		Standard	
3.1	Rated Current	0.5A DC(per pin)	
3.2	Rated Voltage	50V AC(per pin)	
3.3	Ambient Temperature Range	Operating Temp. : -40°C~+85°C Including 30°C Terminal Temperature Rise at rated Current. Storage Temp. : -40°C~+85°C	
3.4	Applicable FPC/FFC Cable	3.3.1	FPC/FFC Thickness : 0.30mm±0.03 mm
		3.3.2	Circuit Poles : 04~60
3.5	Applicable Printed Circuit Board Layout	3.4.1	Per Pitch : 0.50 ± 0.05 mm per Pitch
		3.4.2	SMT Layout : 0.90x0.30 ±0.05 mm for Contact
		3.4.3	SMT Layout : 1.80x1.10 ±0.05 mm for Solder Nail

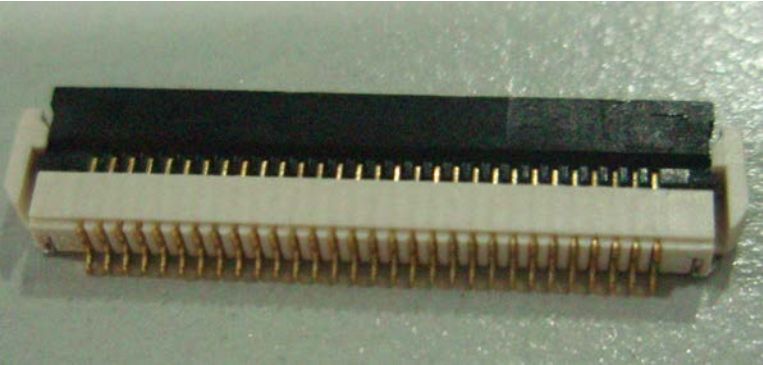


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**4.0 Specimen:**

Part Name/ Part Number/ Picture or Photograph	
ZIF FPC/FFC  JS-0507-XX	

**5.0 Applicable Standards:**

MIL-STD-202 Methods by test of connectors for electronic equipment.  
 EIA 364 Testing method for electrical connectors.

**6.0 Mechanical Performance:**

Item		Test Condition	Requirement
6.1	FPC/FFC Cable Retention Force	Insert the actuator pull the FPC/FFC Cable at the speed rate of $25 \pm 6$ mm per minute. (EIA 364-13)	0.03 kgf/pin MIN
6.2	Pin Retention Force ( in Base )	Axial pullout force on the square pin in the base at the speed rate of $25 \pm 6$ mm per minute. (EIA 364-29C)	Per Contact 0.05kgf Min.
6.3	Solder Nail Retention Force ( in Base )	Axial pullout force on the square pin in the base at the speed rate of $25 \pm 6$ mm per minute.	Per Contact 0.1kgf Min.



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### 7.0 Electrical Performance:

Item	Test Condition	Requirement
7.1	Contact Resistance A maximum voltage of 20mV and a maximum current of 1mA are applied to the Mate FPC connectors. (EIA 364-23)	Contact Resistance: <b>40 milliohms Max.</b>
7.2	Insulation Resistance Apply <b>500V D/C</b> to any two adjacent contacts to measure the insulation resistance. (EIA 364-21)	Insulation Resistance: <b>Initial 500 Megohms Min.</b>
7.3	Withstanding Voltage Apply <b>500V A/C</b> (rms) for 1 minute and the leakage current shall not exceed <b>0.5mA</b> to the adjacent terminal and ground of the unmated connectors. (EIA 364-20)	No breakdown or flashover.
7.4	Connector Differential impedance TDR mode/50 ps Tr	<b>90 ± 15 Ω</b> (75Ω~105Ω)



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**8.0 Environmental Performance:**

Item		Test Condition	Requirement
8.1	Durability	Mate applicable FFC/FPC and insert and withdraw actuator at the speed rate of 25±3 mm/minute. Times: Up to 30 cycles	(After the test) Contact resistance : <b>40 milliohms Max.</b>
8.2	Vibration	Frequency: 10~55~10 Hz/minute. Amplitude: 1.5 mm P-P. Direction: 1. Axis of up and down. 2. Axis of right the left. 3. Axis of front and back. Period: 2 hours for each direction. (EIA 364-28A-23)	(After the test) Contact Resistance: <b>40 milliohms Max.</b>  <b>No discontinuity current is longer than 1 microsecond.</b>
8.3	Humidity Steady State	Temperature: <b>40±2°C.</b> Humidity: 90%~95% (RH). Period: 96 hours continuously. (EIA 364-31)	(After the test) Contact Resistance: <b>40 milliohms Max.</b>
			(After the test) Insulation Resistance: <b>500 Megohms Min.</b>
			(After the test) Withstanding Voltage : No breakdown or flashover
8.4	Thermal Shock	One Cycle Consists Of: <b>-55 +0/-3°C for 30 minutes. → Room Temp.5 minutes</b> <b>85+3/-0°C for 30 minutes. → Room Temp.5 minutes</b> Total Cycles: 5 Cycles. (EIA 364-32)	Same as paragraph 8.3



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Item		Test Condition	Requirement
8.5	Heat Aging	Temperature: 85±2°C. Period: 96 hours continuously. (EIA 364-17)	(After the test) Contact Resistance: <b>40 milliohms Max.</b>
8.6	Salt Spray	Temperature: 35±2°C. Density: 5 % in weight. Period: <b>24 hours</b>	(After the test) Contact Resistance: <b>40 milliohms Max</b>
8.7	Solder Ability	Solder Temperature: 245 ± 5°C. Immersion Period: 3±0.5 Seconds Method : 1.5mm From Square Pin Tip. (EIA 364-52)	Solder entirely 95% of immersed area must show no voids or pinholes.
8.8	Resistance To Soldering Heat	By reflow soldering: Refer to Temperature Profile 8.8.1	Not deformation or damage.
		By soldering iron: 350 ± 5°C 3±0.5 Seconds. Method : 0.5mm From Terminal Tip and Solder Tab Tip	



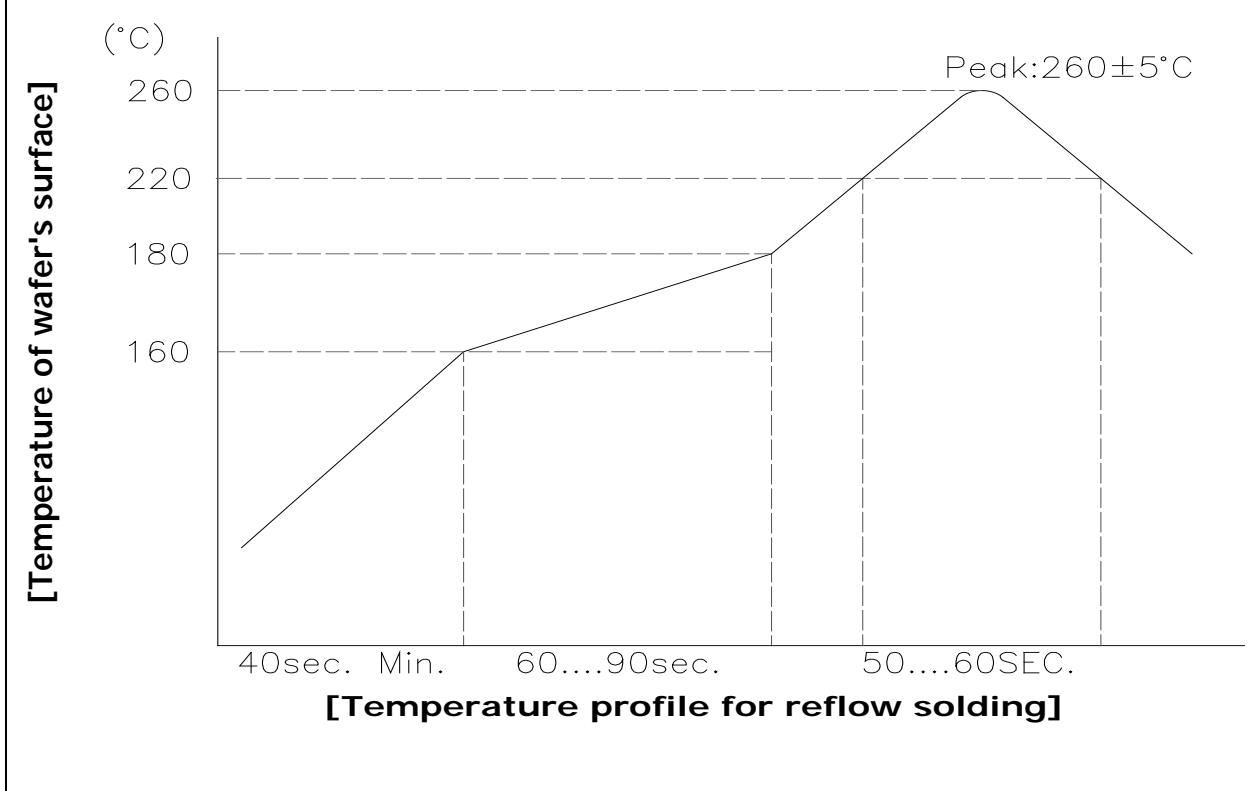
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### 8.8.1 Temperature Profile:



**9.0 Remark: Any change or revision for the product specification will not be announced in advance. Please contact our sales representative for the latest information.**