



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



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Type Document	Product Specification	Revised / Edition	E
Date Issued	2008/07/28	Data Revised	2013/01/15
Subject: JS-0501-XX JS-1003-XX JS-0501A-XX JS-1003A-XX Pitch 0.50mm / 1.00mm SMT Series ZIF FPC/FFC Connector			Issued By: Engineering Dept.

This specification is referred to Pitch 0.50mm/1.00mm

SMT series (ZIF) FPC/FFC connector.

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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-0501-XX	JS-0501-XX
	Pitch 0.50mm Double the contact point	JS-0501A-XX	JS-0501A-XX
	Pitch 1.00mm	JS-1003-XX	JS-1003-XX
	Pitch 1.00mm Double the contact point	JS-1003A-XX	JS-1003A-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	Matte Sn / Gold Plated:
	Cover	PA9T	UL 94V-0
	Base	LCP	UL 94V-0

3.0 Characteristic:

Item		Standard	
3.1	Rated Current	0.5A AC/DC	
3.2	Ambient Temperature Range	Operating Temp. : -25°C~+85°C Including 30°C Terminal Temperature Rise at rated Current. Storage Temp. : -25°C~+85°C	
3.3	Applicable FPC/FFC Cable	3.3.1	FPC/FFC Thickness : 0.30mm±0.03 mm
		3.3.2	Circuit Poles : 4~60 (Pitch 0.50mm)
			Circuit Poles : 4~30 (Pitch 1.00mm)
3.4	Applicable Printed Circuit Board Layout	3.4.1	Per Pitch : 0.50/1.00 ± 0.05 mm per Pitch
		3.4.2	SMT Layout : 0.90x0.30 ±0.05 mm for Contact
		3.4.3	SMT Layout : 2.00x1.00 ±0.05 mm for Solder Nail



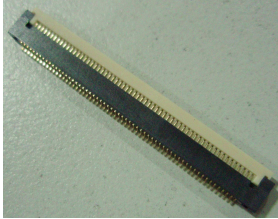
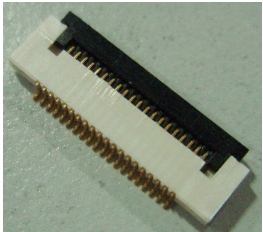
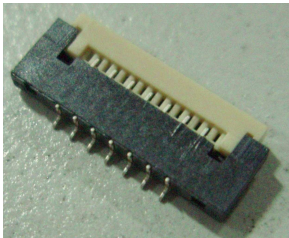
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4.0 Specimen:

Part Name		Part Number	Picture or Photograph
ZIF FPC/FFC Connector	Pitch 0.50mm	JS-0501-XX	
	Pitch 0.50mm Double the contact point	JS-0501A-XX (Halogen Free)	
	Pitch 1.00mm	JS-1003-XX JS-1003A-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 ± 6 mm per minute. (EIA 364-13)	0.2kgf+ (n-4)x0.025 Min
6.2	Pin Retention Force (in Base)	Axial pullout force on the square pin in the base at the speed rate of 25 ± 6 mm per minute. (EIA 364-29C)	Per Contact 0.3kgf 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 10mA are applied to the Mate FPC connectors. (EIA 364-23)	Contact Resistance: 20 milliohms Max.
7.2 Current Continuity	Each circuit of the connector shall be connected in series continuity meter shall detect current discontinuity longer than 1 microsecond during the vibration test.	No discontinuity current is longer than 1 microsecond.
7.3 Insulation Resistance	Apply 500V D/C to any two adjacent contacts to measure the insulation resistance. (EIA 364-21)	Insulation Resistance: Initial 100 Megohms Min.
7.4 Withstanding Voltage	Apply 500V A/C (rms) for 1 minute and the leakage current shall not exceed 0.5mA to the adjacent terminal and ground of the Mate connectors. (EIA 364-20)	No breakdown or flashover.



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8.0 Environmental Performance:

Item	Test Condition	Requirement
8.1 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)	Initial Contact Resistance : 20 milliohms Max. (After the test) Contact Resistance: 40 milliohms Max.
8.2 Humidity Steady State	Temperature: 40±2°C. Humidity: 90%~95% (RH). Period: 96 hours continuously. (EIA 364-31)	No discontinuity current is longer than 1 microsecond.
		(After the test) Contact Resistance: 40 milliohms Max.
		(After the test) Insulation Resistance: 100 Megohms Min.
8.3 Thermal Shock	One Cycle Consists Of: -55 +0/-3°C for 30 minutes. → Room Temp.5 minutes 85+3/-0°C for 30 minutes. → Room Temp.5 minutes Total Cycles: 25 Cycles. (EIA 364-32)	Same as paragraph 8.2



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Item		Test Condition	Requirement
8.4	Heat Aging	Temperature: 85±2℃. Period: 96 hours continuously. (EIA 364-17)	Contact Resistance: 40 milliohms Max. after the test.
8.5	Salt Spray	Temperature: 35±2℃. Density: 5 % in weight. Period: Terminal or contact (Stamping after tin plated for 8 hours) ; Terminal or contact (Stamping before tin plated for 48 hours) (EIA 364-26)	(After the test) Contact Resistance: 40 milliohms Max
8.6	Solder Ability	Solder Temperature: 245 ± 5℃. 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.



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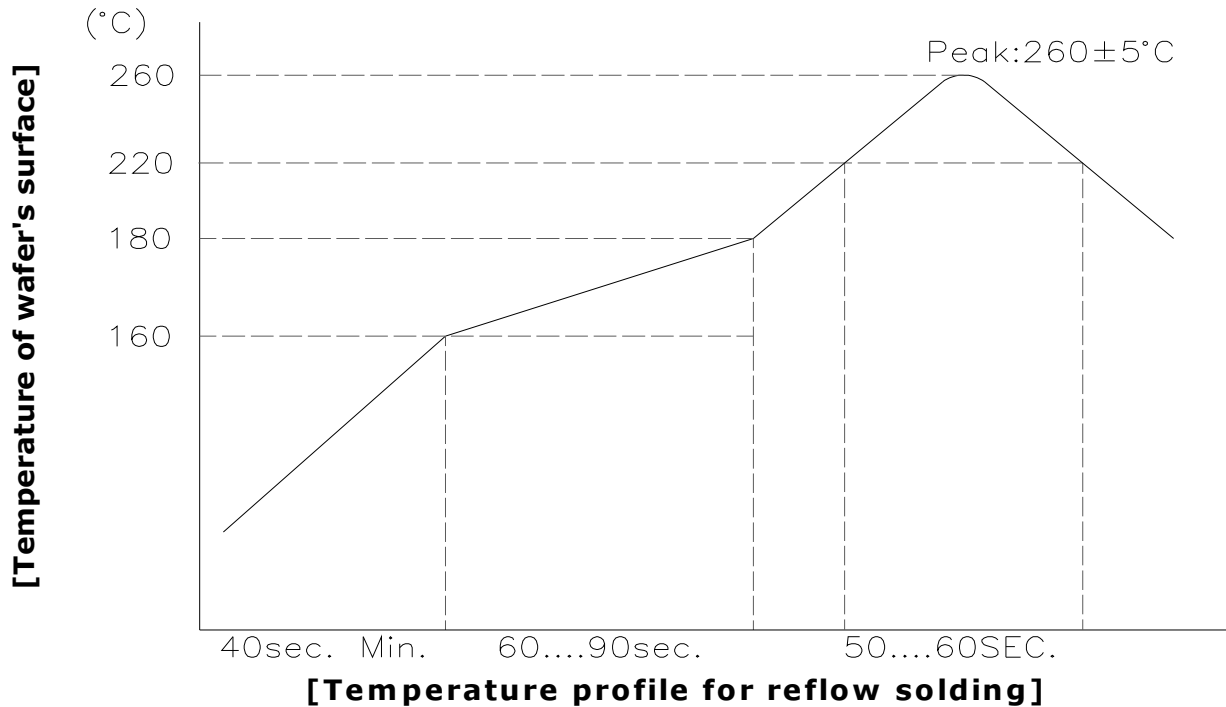


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Item	Test Condition	Requirement
8.7	Resistance To Soldering Heat By reflow soldering: Refer to Temperature Profile 8.8.1	Not deformation or damage.
	By soldering iron: $350 \pm 5^{\circ}\text{C}$ 3 ± 0.5 Seconds. Method : 0.5mm From Terminal Tip and Solder Tab Tip	

8.7.1 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.