



# 喬訊電子工業股份有限公司

CHYAO SHIUNN ELECTRONIC INDUSTRIAL LTD.  
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<b>Date Issued</b>	<b>2010/02/21</b>	<b>Data Revised</b>	<b>2010/02/21</b>
<b>Subject: JS-20131D3-02M</b> <b>Pitch 13.0mm Center Spacing Wire to Board Connector</b>			<b>Issued By:</b> <b>Engineering Dept.</b>

*This specification is referred to the 13.0mm wire to board DIP series connector.*

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## 1.0 Product Name/Part Number & Drawing Number:

Product Name	Part Number	Drawing Number
Terminal	NA	NA
Housing	NA	NA
wafer	JS-20131D3-02	JS-20131D3-02

## 2.0 Construction/Dimensions/Material & Surface Finish:

Construction and dimensions shall be in accordance with the referenced drawing.  
Material and surface finish shall be specified as listing.

Part Name		Material	Surface Finish
Terminal		NA	NA
Housing		NA	NA
Wafer	Base	PA9T	UL 94V-0
	Contact	Copper Alloy	Matte Tin
	Solder Tab	Copper Alloy	Matte Tin



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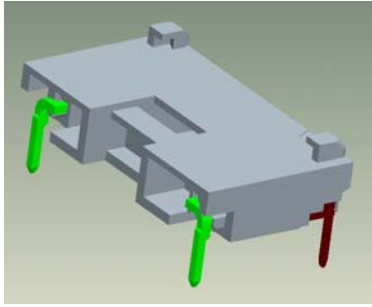
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### 3.0 Characteristic:

Item		Standard	
3.1	Rated Current	1A AC/DC (With AWG #24 is applied)	
3.2	Rated Voltage	3000V AC/DC	
3.3	Temperature Range	-25°C ~ +85°C	
3.4	Applicable Wire	3.4.1	Conductor Construction Size: AWG #24~#28
		3.4.2	Wire Insulation O.D.: 0.90mm~1.80mm (Silicone rubber)
3.5	Applicable Printed Circuit Board (PCB)	3.5.1	Pitch Layout: DIP /15.5&16.6±0.05mm
		3.5.2	Pin Post Layout: DIP / $\phi$ 0.8±0.05mm
		3.5.3	Ear Buckle Layout: DIP / $\phi$ 0.6±0.05mm

### 4.0 Specimen:

Part Name	Part Number	Picture or Photograph
Housing	NA	NA
Terminal	NA	NA
Wafer	JS-20131D3-02	



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## 5.0 Applicable Standards:

MIL-STD-202 Methods by test of connectors for electronic equipment.

MIL-STD-1344 Test methods for electrical connectors.

## 6.0 Mechanical Performance:

Item		Test Method	Requirement	
6.1	Insertion & Retention Force	Insert and withdraw with connectors at the speed rate of 25mm/minute.	Refer to paragraph 9.1	
6.2	Crimp Tensile Strength	Pull with contact terminal at the speed rate of 25mm/minute.	AWG#24 size wire	3.0kgf/Min.
			AWG#26 size wire	2.0kgf/Min.
			AWG#28 size wire	1.0kgf/Min.
6.3	Contact Retention Force	Withdraw with contact terminal at the speed rate of 25mm/minute.	1.0kgf/Min.	
6.4	Post Retention Force	Use a tension gauge to press the post at the speed rate of 25mm/minute.	1.0kgf/Min.	



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## 7.0 Electrical Performance:

Item		Test Method	Requirement
7.1	Contact Resistance	A maximum voltage of 20mV and a maximum current of 10mA are applied to the Mate connectors.	Initial : <b>10 mΩ</b> Max After : <b>20 mΩ</b> Max
7.2	Current Continuity	Each circuit of the connector shall be connected in series. Continuity meter shall inspect current discontinuity.	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.	Initial: <b>1000 MΩ</b> Min. After: <b>500 MΩ</b> Min. (Humidity&thermal shock tests)
7.4	Withstanding Voltage	Apply 5000V A/C (rms) for 1 minute to the adjacent terminal and ground of the mate connectors.	No breakdown or flashover.



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## 8.0 Environmental Performance:

Item		Test Method	Requirement
8.1	Vibration	Frequency: 10~55~10 Hz/minute. Amplitude: 1.52 mm. Direction: 1. Axis of up and down. 2. Axis of right the left. 3. Axis of front and back.	<b>Contact Resistance: 20 milliohms Max. after the test.</b> <b>No discontinuity</b>
8.2	Humidity Steady State	Temperature: 40±2°C. Humidity: 90%~95% (RH). Period: 96 hours continuously.	<b>Contact Resistance: 20 milliohms Max. after the test.</b> <b>Insulation Resistance: 500 Megohms Min. after the test.</b> <b>Withstanding Voltage: No breakdown or flashover.</b>
8.3	Heat Aging	Temperature: 85±3°C. Period: 96 hours continuously.	<b>Contact Resistance: 20 milliohms Max. after the test,</b> <b>And no damage.</b>
8.4	Thermal Shock	One Cycle Consists Of: - 25(+0-3)°C for 30 minutes. + 85(+3-0)°C for 30 minutes. Time of Cycles: 25 Cycles.	<b>Same as paragraph 8.2</b>



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Item		Test Method	Requirement
8.5	Salt Spray	Temperature: 35±2°C. Density: 5 % in weight. Period: 48 hours.	<b>Contact Resistance: 20 milliohms Max. after the test, And no damage.</b>
8.6	Hydrogen Sulfide GAS	Density: 3±1ppm. Temperature: 40±2°C. Humidity: 75%(RH). Period: 96 hours continuously.	<b>Contact Resistance: 20 milliohms Max. after the test, And no damage.</b>
8.7	Solder Ability	Solder Temperature: 230 ± 5°C. Immersion Period: 3 ±0.5 Seconds Method: 1.5mm (DIP) from terminal tip and fitting nail tip.	Solder entirely 95% of immersed area must show no voids or pinholes.
8.8	Resistance To Soldering Heat	Solder Temperature: 260 ± 5°C. Immersion Period: 5±0.5 Seconds By soldering iron: Solder Temperature: 350 ± 5°C. Immersion Period: 3±0.5 Seconds Method: 1.5mm (DIP) from terminal tip and fitting nail tip.	Not deformation or damage.



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## 9.0 Insertion Force (I.F.) & Retention Force (R.F.)

UNIT: Kg/f

No. Of Circuits	At initial		At 5 <sup>th</sup>	No. Of Circuits	At initial		At 5 <sup>th</sup>
	I.F. (Max.)	R.F. (Min.)	R.F. (Min.)		I.F. (Max.)	R.F. (Min.)	R.F. (Min.)
02	2.6	0.5	0.4	17			
03				18			
04				19			
05				20			
06				21			
07				22			
08				23			
09				24			
10				25			
11				26			
12				27			
13				28			
14				29			
15				30			
16							

## 10.0 Remark:

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