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Jameco Part Number 803313

TITLE :

"MILLI-GRID" 2mm DUAL ROW SIDE-ENTRY RECEPTACLES

> ORIGINAL 03 JUL 1992

DOCUMENT CONTROL

Ву	CHLIC	Approved By:	Product Specification "MILLI-GRID" 2mm DUAL ROW SIDE-ENTRY RECEPTACLES	No. of Pages	Rev A
LT	REVISION RECORD		ВУ	DATE	
1	X-RELEASED PER ECN #S1-385		JDK	910206	
2	REVISED PER ECN #S1-619 JDK 910502			910502	
3	ADD 87368-*** TO SPEC PER ECN #S2-494			MAX	920414
A	REVISED AND RELEASED PER ECN# S2-599 MAX 920610			920610	

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1.0 SCOPE

This specification covers the performance requirement for Milli-Grid 2mm Dual Row Side-Entry Receptacles.

2.0 PRODUCT DESCRIPTION

The Milli-Grid 2mm Dual Row Side-Entry Receptacles include the P.C. board Through Hole version 87264, and the P.C. board Surface Mount version 87368. They are board-in connectors that are intended to mate with Milli-Grid Headers for inter-connections.

3.0 APPLICABLE DOCUMENT

The following documents form a part of this specification to the extent specified herewith. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the reference documents, this specification shall take precedence.

MIL-STD-202 Test methods for Electronic and Electrical component parts.

MIL-STD-1344 Test methods for Electrical Connectors.

4.0 MATERIALS

- 4.1 Housing 30% Glass Filled Nylon 46, UL 94V-0 Color - Black
- 4.2 Terminal Phosphor Bronze
 (See Product Sales Drawings for available plating options)

5.0 RATINGS

- 5.1 Current: 1.0 amps
- 5.2 Temperature Range: -55 to +105 deg C

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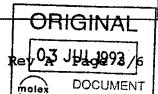
6.0 PERFORMANCE SPECIFICATIONS

6.1 Electrical Performance

<u>ITEM</u>	TEST CONDITION	REQUIREMENT
Contact Resistance	Per MIL-STD-1344A method 3004.1	15 milliohms Max.
Insulation Resistance	500 VDC applied for 1 minute per MIL-STD- 1344A method 3003.1	1000 Megaohms Min.
Dielectric Strength	500 Vrms for 1 minute between adjacent terminals	No Breakdown
Capacitance	Measure between adjacent terminals at 1 MHz	2.0 pf Max.

	at 1 MHz	- Pro-					
6.2 Mechanical Performance							
ITEM	TEST CONDITION	REQUIREMENT					
Individual Contact Insertion Forces	Insert a maximum gage pin at a rate of 12 +/- 5 cm/min	180 grams Max.					
Individual Contact Withdrawal Forces	Withdraw a minimum gage pin at a rate of 12 +/- 5 cm/min	20 grams Min.					
Contact Normal Force	Apply a load normal to the point of contact of the terminal						
Durability	Mate connectors 25 times at a maximum rate of 10 cycles/min	Contact Resistance 10 milliohms Max. change from initial					
Mechanical Shock	1/2 Sine Wave, 50G, 11ms, Pulse, 3 shocks per axis per MIL-STD- 202F method 231B condition A	Contact Resistance 10 milliohms Max. Change from initial Discontinuity 1 micro-second Max.					

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PRODUCT	SPECIFICATION				
PS-87264					
	· 				

6.2 Mechanical Performance cont....

TEST CONDITION REQUIREMENT ITEM

Vibration Simple Harmonic Motion 0.06 inch total

excursion, 10-55-10 Hz traverse in 1 minute for 2 hours in each axis per MIL-STD-202F

method 201A

Contact Resistance 10 milliohms Max. change from initial

Discontinuity 1 micro-second Max.

Contact Resistance

6.3 Environmental Performance

TEST CONDITION REQUIREMENT ITEM Thermal Shock Mated connectors No damage in

> expose for 5 cycles: Temperature Duration -55 +0/-5 C 30 min. +105 +3/-0 C 30 min.

10 milliohms Max. change from initial

Thermal Aging Mated connectors expose at 105 + /-2 Cfor 96 hours

No damage in appearance

appearance

Contact Resistance 10 milliohms Max. change from initial

Mated connectors Cyclic Humidity

expose to temperature cycle between +25 +/-2 C to +65 +/-2 C at 90% to 98% R.H. for 240 hours per MIL-STD-1344A method 1002.2 type II, except step 7

No damage in appearance

Contact Resistance 10 milliohms Max. change from initial

Flowers of Sulfur

Mated connectors exposed to sulfur vapors for 17 hours at +65 +/-2 C

Contact Resistance 10 milliohms Max. change from initial

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6.3 Environmental Performance cont....

ITEM	TEST CONDITION	REQUIREMENT
Salt Spray	Mated connectors exposed to 5% concent-ration sodium chloride solution at 35 +/-2 C for 96 hours per MIL-STD-202F method 101D condition A	Contact Resistance 10 milliohms Max. change from initial
Current Cycling	Apply 1 amp DC to mated connectors over a cycle of 45 minutes ON and 15 minutes OFF for 48 hours	Contact Resistance 10 milliohms Max. change from initial
Temperature Rise	Apply 1.0 amps DC to mated connectors and measure contact temperature rise for 48 hours	+30 degree C Max. temperature rise over ambient
Solderability	Solder tail to be dipped in flux and examined as per MIL-STD-202F method 208F	Dipped plated portion should have 95% continuous new solder coating coverage
Resistance to Soldering Heat	Solder tail to be dipped in flux as per MIL-STD-202F method 210A condition B	No damage in appearance of the connector
Resistance to Infra-Red Heat	Subject connector to the IR Reflow temp. of 260 +/- 5 C for 12 +/- 2 sec.	No damage in appearance of the connector

7.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit, and storage.

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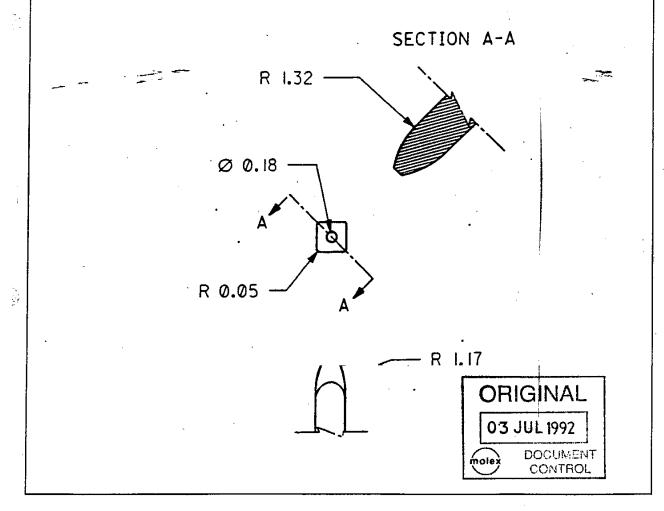
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8.0 GAGES

Individual Contact Insertion and Withdrawal Test to be performed using steel gage pins to simulate the minimum and maximum mating pin dimensions. The size of these gage pins are as follows:

Minimum Pin Size = 0.48 +/- 0.005 mm Maximum Pin Size = 0.52 +/- 0.005 mm

Recommended Pin Configuration



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