

Molex 44380-0002 PDF

深圳创唯电子有限公司

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PRODUCT SPECIFICATION

INVERTED RIGHT ANGLE MODULAR JACKS

1.0 SCOPE

This Product Specification covers the 1.02 mm (.040 inch) centerline (pitch) printed circuit board (PCB) modular jack connector series with selective gold and tin plating.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

Single Port Inverted Modular Jack	43860
Single Port Inverted Mini-PCI Modular Jack	44380
Dual Port Inverted Modular Jack	43814
Ganged Inverted Modular Jack	44248
Single Port Inverted Modular Jack with Keep-out Feature	44620

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SD-43860-001, SD-44380-001, SD-43814-001, SD-44248-001) for information on dimensions, materials, plating and markings.

2.3 SAFETY AGENCY APPROVALS

UL File Number..... E107635
CSA File Number..... LR19980

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

FCC Rules and Regulations, Part 68, Subpart F
REA Bulletin 345-81, PE-76; Specification for modular telephone set hardware
ANSI/EIA/TIA-568
IEC-60603-7
UL 1863
MIL-STD-202; General requirements for test specifications

4.0 RATINGS

4.1 VOLTAGE

56.5 V DC
150 V_{RMS} AC (Ringing voltage only)

4.2 CURRENT

1.5 Amps @ 25°C

4.3 TEMPERATURE

Operating: - 40°C to + 85°C
Nonoperating:* - 40°C to + 85°C
*Packaging materials should not exceed + 50°C

<u>REVISION:</u> H3	<u>ECR/ECN INFORMATION:</u> EC No: UCP2012-3129 DATE: 2012/03/22	<u>TITLE:</u> PRODUCT SPECIFICATION INVERTED RIGHT ANGLE MODULAR JACKS	<u>SHEET No.</u> 1 of 5
<u>DOCUMENT NUMBER:</u> PS-43860-003	<u>CREATED / REVISED BY:</u> NNGUYEN	<u>CHECKED BY:</u> JBELL	<u>APPROVED BY:</u> FSMITH



PRODUCT SPECIFICATION

5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA . (Measurement locations in Section 7.0)	20 milliohms MAXIMUM [initial]
	Insulation Resistance	Unmated connector, mounted to a PCB: apply a voltage of 100 VDC between adjacent terminals and between terminals to ground.	500 Megohms MINIMUM
	Dielectric Withstanding Voltage	Mate connectors: apply a voltage of 1000 VAC for 1 minute between adjacent terminals and 1500 VAC between terminals to shield.	No breakdown; current leakage < 5 mA

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5.2 MECHANICAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Connector Mate Force	Mate connector at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute. (Gage dimensions in Section 7.0)	22 N (5 lbf) unshielded MAXIMUM insertion force 35 N (8 lbf) shielded MAXIMUM insertion force
	Durability	Mate connectors up to 500 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)
	Vibration (Random)	Amplitude: 1.50mm (.060") peak to peak Sweep: 10-55-10 Hz in one minute Duration: 15 minutes ±X,±Y,±Z axis (45 minutes total)	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
	Plug Retention Force	Apply an axial pullout force on the plug at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	89 N (20 lbf) MINIMUM retention force
	PCB Separation Forces	Apply a perpendicular load on the plug at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	4.5 N (1 lbf) MINIMUM withdrawal force before solder reflow 89 N (20 lbf) MINIMUM withdrawal force after solder reflow
	Shock (Mechanical)	Mate connectors and shock at 50 g's with three saw tooth wave form shocks in the ±X,±Y,±Z axis (18 shocks total).	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond

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5.3 ENVIRONMENTAL REQUIREMENTS

	DESCRIPTION	TEST CONDITION	REQUIREMENT
	Shock (Thermal)	Mate connectors; expose to 10 cycles of: -40°C to +85°C 30 minutes dwell	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
	Thermal Aging	Mate connectors; expose to: 240 hours at 85±2°C	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
	Humidity (Cyclic)	Mate connectors: expose to 10 cycles at 90-95% relative humidity with temperatures at +25°C and +65°C per MIL-STD-202F method 106F (without -10°C dip)	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 200 Megohms MINIMUM & Visual: No Damage
	Solder Resistance	Dip connector terminal tails in solder: Solder Duration: 7±0.5 seconds Solder Temperature: 260±5°C {Recommended same parameters as SMES-152. } Note: The solder resistance test simulates a wave solder process. This test should not be used to determine the suitability of the connector for a convection or IR reflow solder process.	Visual: No Damage to insulator material

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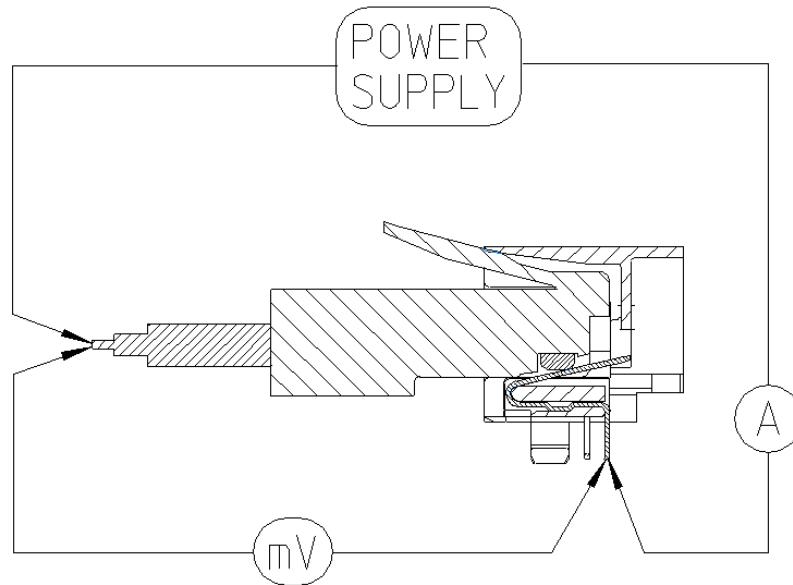


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6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.
See appropriate sales drawings on Sheet 1 for packaging descriptions.

7.0 GAGES AND FIXTURES



TERMINATION RESISTANCE MEASUREMENT POINTS

Connector and plug terminals and wire conductor bulk resistance to be subtracted from measurements

8.0 OTHER INFORMATION

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APPLICATION SPECIFICATION

CHEMICAL COMPATIBILITY OF

MODULAR JACKS WITH LIGHT PIPES

1.0 SCOPE

The purpose of this document is to address the application of modular jacks that contain polycarbonate or polysulfone light pipes that can be susceptible to chemicals in some applications.

2.0 PRODUCT NAME AND SERIES NUMBERS

- Single Port Inverted Modular Jack 43860
- Single Port Inverted Mini-PCI Modular Jack 44380
- Ganged Inverted Modular Jack 44248
- Single Port Inverted Modular Jack with Keep-out Feature 44620
- Right Angle, Stacked Ganged Modular Jack 44170

3.0 REFERENCE DOCUMENTS

See the appropriate sales drawings (SD-43860-001, SD-44380-001, SD-44248-001, SD-44620-001, and SD-44170-001) for information on specific part numbers and materials.

4.0 GENERAL REQUIREMENTS

The transparent material properties of polycarbonate and polysulfone make them desirable for light pipe applications, however they are not as resistant to some chemicals as other plastic materials typically used in the connector industry. Since each application and/or process is unique, it is important to evaluate each application individually for chemical compatibility. The effect of chemical attack on plastic is dependant upon many factors in the application including exposure time, temperature, chemical concentration, residual stress in the light pipe, and other environmental factors. In general, higher temperatures, longer exposure time and increased residual stress will increase the rate of chemical attack. The detrimental effects of chemical attack on the light pipes can typically be seen by discoloration, cracking, swelling, hazing, softening or brittleness.

Table 1 is a list of chemicals that should be avoided in the processing and application of modular jacks with light pipes. This list of chemicals is not meant to be all-inclusive and evaluation of each application is highly recommended. In general amines, aromatic hydrocarbons, chlorinated hydrocarbons, esters, strong alkalines, halo-generated hydrocarbons, ketones and some alcohols, greases and oils should be avoided.

REVISION: A	ECR/ECN INFORMATION: EC No: UCP2008-0965 DATE: 2007 / 10 / 26	TITLE: Chemical Compatibility of Modular Jacks with Light Pipes	SHEET No. 1 of 2
DOCUMENT NUMBER: AS-43860-001	CREATED / REVISED BY: JBELL	CHECKED BY: LSCHMIDT	APPROVED BY: FSMITH



APPLICATION SPECIFICATION

Table 1
Chemicals to Avoid with Polycarbonate & Polysulfone Lightpipes

1,1,1-Trichloroethane
Acetone
Antifreeze
Butter
Chlorine
Chloroform
Ethyl Acetate
Gasoline
Hydrogen Chloride
Hydrogen Peroxide
Isopropanol
Margarine
Methanol
Methyl Ethyl Ketone
Methylene Chloride
Motor oil
Olive Oil
Ozone
Propionic Acid
Sodium Hydroxide
Sulfuric Acid
Toluene
Transmission Fluid
Vegetable Oil

REVISION: A	ECR/ECN INFORMATION: EC No: UCP2008-0965 DATE: 2007 / 10 / 26	TITLE: Chemical Compatibility of Modular Jacks with Light Pipes	SHEET No. 2 of 2
DOCUMENT NUMBER: AS-43860-001	CREATED / REVISED BY: JBELL	CHECKED BY: LSCHMIDT	APPROVED BY: FSMITH

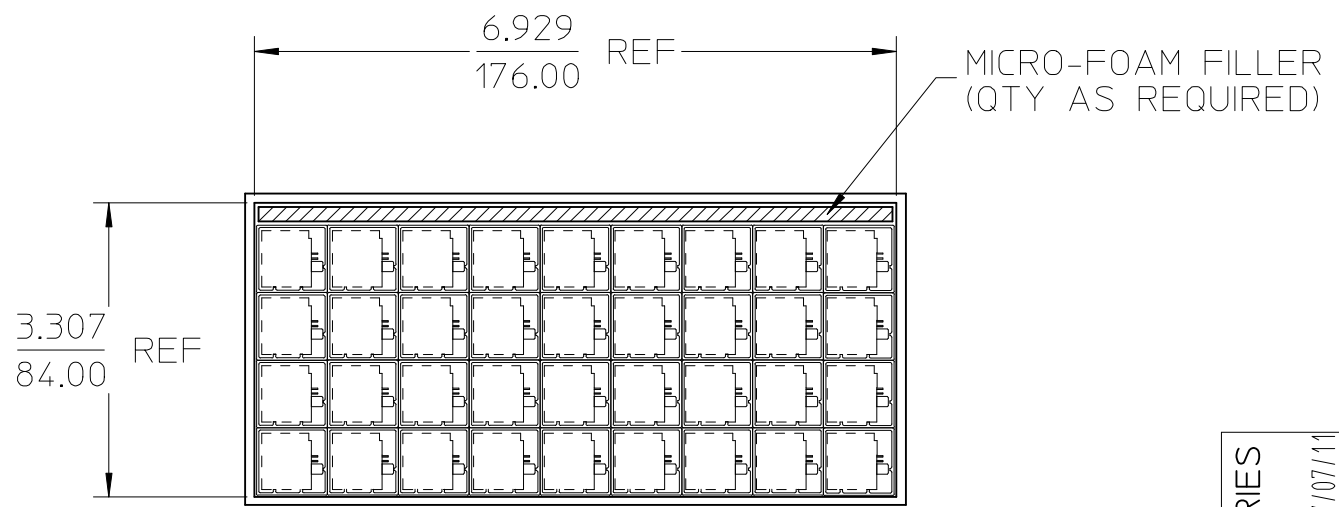
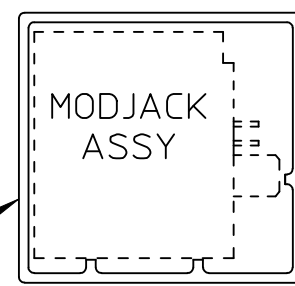
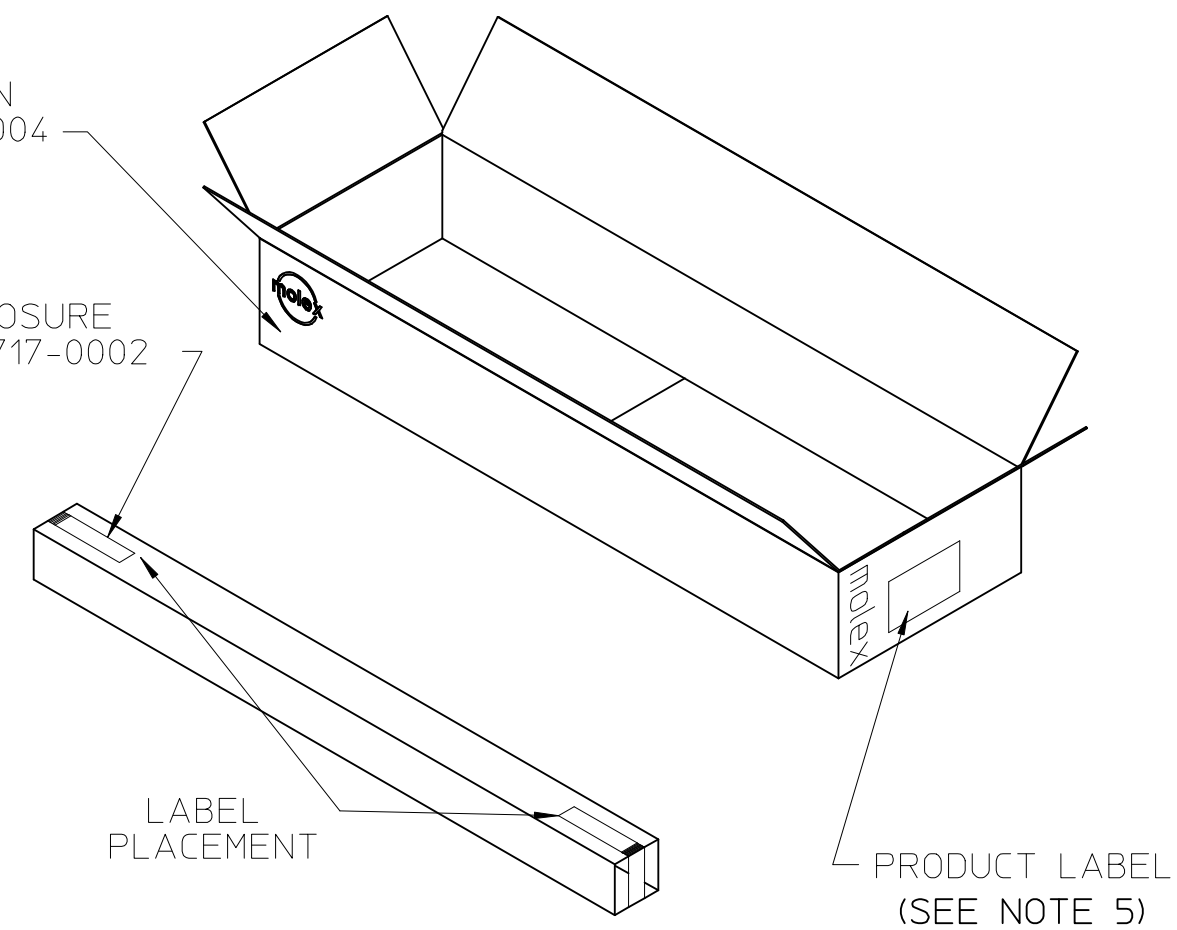
NOTES:

1. STAPLES MAY BE USED TO SET UP CARTONS ONLY.
2. CARTON CLOSURES MUST BE DONE WITH TAPE.
3. PRINTING ON TUBE MUST BE UP, WITH SOLDER TAILS TO RIGHT SIDE OF BOX, VIEWED FROM THE LABEL END OF THE BOX.
4. TAPE AT END OF TUBES MUST BE INSTALLED WITH LOOSE ENDS INLINE WITH THE PRINTING ON THE TUBES.
5. A PRODUCT LABEL IS TO BE PLACED ON EACH BOX APPROXIMATELY AS SHOWN. THE FOLLOWING INFO MUST BE CONTAINED ON THE LABEL:
 FINAL ASSEMBLY MATERIAL NUMBER
 PRODUCT DESCRIPTION
 TOTAL QUANTITY OF MODJACKS PER BOX
 MANUFACTURING DATE CODE

CARTON
96707-0004

TUBE CLOSURE
LABEL 96717-0002

TUBE
44102-0001



INVERTED MODULAR JACKS SERIES NUMBERS 43860, 44380, 44620, 45205		
PARTS PER TUBE	TUBES PER CARTON	PARTS PER CARTON
35	36	1260

TYPICAL END VIEW
INSIDE OF CARTON
(LABEL END OF BOX)
NOT TO SCALE

REMOVE OBS. SERIES EC NO: UCP2007-2472 DRWN: JBELL 2007/07/11 CH'KD: LSCHMIDT 2007/07/18 APPR: FSMITH 2007/07/18	DESCRIPTION REV C6	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DIMENSION STYLE IN/MM	SCALE	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
		▽=0 ∇=0		DRAWN BY SCHAFFER	DATE 98/04/09	TITLE PACKAGING SPECIFICATION INVERTED MODULAR JACKS	
				CHECKED BY ROBERTS	DATE 98/04/14	MOLEX INCORPORATED DOCUMENT NO. PK-43860-004	
				APPROVED BY ROBERTS	DATE 98/04/17		SHEET NO. 1 OF 1
			MATERIAL NO. N/A	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			