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Jameco Part Number 2031978

RIGHT ANGLE LOW PROFILE MODULAR JACK

PRODUCT SPECIFICATION 95501 SERIES

1.0 SCOPE

This specification covers the performance requirements of the Molex Right Angle Low Profile Modular Telephone Jacks. Where applicable, tests are in accordance with, or in excess of all requirements specified in REA Bulletin 345-81, PE-76-specification for Modular Telephone Set. Other applicable documents are FCC rules and regulations part 68: Connection of terminal equipment to the telephone network.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME.

R/A Low Profile PC Jack Through Hole Version.
R/A Low Profile PC Jack SMT Version.

Both Jacks are available in 8, 6 or 4 circuit sizes.

The 6 circuit size can be loaded with either 6 or 4 contacts.

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

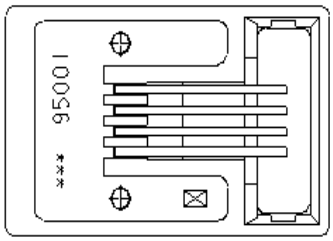
See the appropriate Sales Drawings for information on materials, platings and markings.

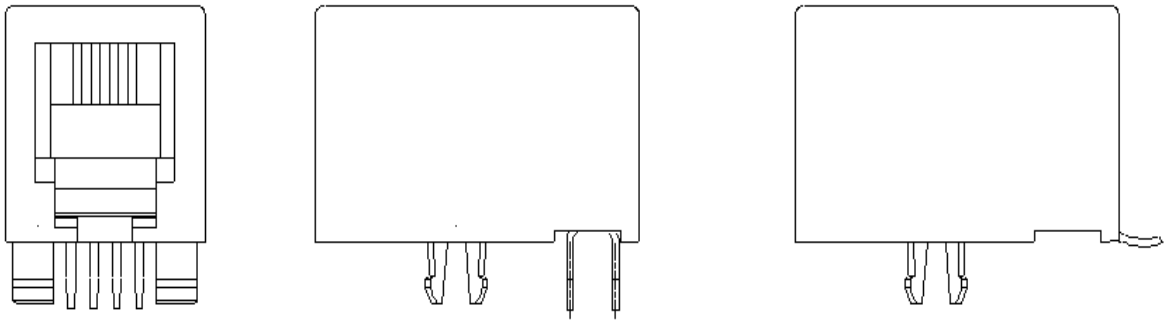
2.3 SAFETY AGENCY APPROVALS

Plugs and Jacks shall comply with the mechanical specification as in Part 68, Subpart F of the FCC Rules and Regulations.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See the appropriate Sales Drawings and the other sections of this Specification for the necessary referenced Documents and Specifications.





THROUGH HOLE VERSION

S.M.T. VERSION

4.0 RATINGS

4.1 VOLTAGE
125 Volts DC

4.2 CURRENT
1.5 Ampere max

4.3 TEMPERATURE
Operating: - 40°C to + 80°C
Non operating: - 40°C to + 80°C

5.0 PERFORMANCE

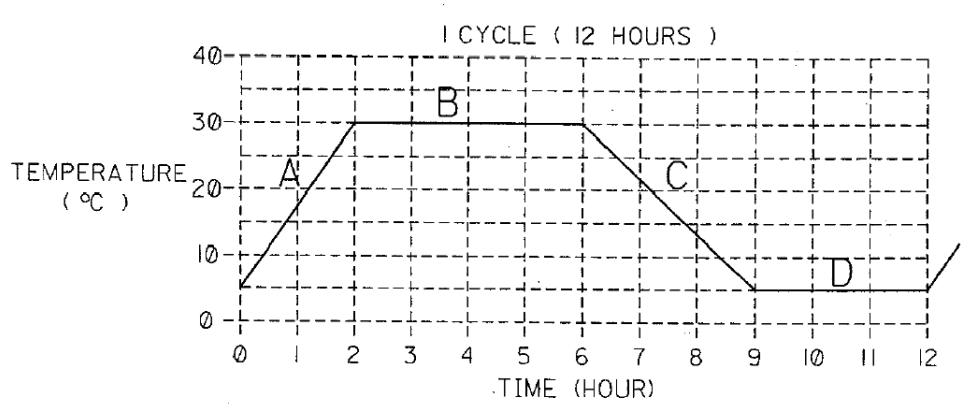
5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Contact Resistance (Low Level)**	Mate connectors: apply a maximum voltage of **50** mV and a current of **100** mA. (Measurement locations in Section 7.0)	**20** milliohms MAXIMUM [initial]
2	**Insulation Resistance**	Mate connectors with a voltage of **500** VDC between adjacent terminals and between terminals to ground.	**500** Megohms MINIMUM
3	**Dielectric Withstanding Voltage**	Mate connectors: apply a voltage of **{two times the rated voltage plus 1000 volts}** VAC for **1** minute between adjacent terminals and between terminals to ground.	No breakdown
4	**Capacitance**	Measure between adjacent terminals at **1** MHz.	**2** picofarads MAXIMUM

5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
8	**Connector Insertion and Withdrawal Forces**	Insert and withdraw a plug at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	MAXIMUM insertion force & MINIMUM withdrawal force T.B.D
9	**Module Retention Force (in Housing)**	Axial pullout force on the terminal in the housing at a rate of 25 ± 6 mm (1 ± 1¼ Inch) per minute.	**2** daN (**4.4** lbf) MINIMUM retention force
10	**Jack Retention Force on P.C. Board**	Axial pullout force on the Jack on the P.C. Board at a rate of **25 ± 6** mm (**1 ± ¼** inch) per minute.	Min. Retention Force 10 daN (22 lb)
11	**Durability**	Mate connectors up to **500** cycles at a maximum rate of **20** cycles per minute.	Contact Resistance: 10 milliohms MAXIMUM (change from initial)
12	**Vibration**	Amplitude: 1.50 mm/(0.60”) peak to peak Sweep: 5-55-5 Hz in one minute. Duration: 2 hours in each x-y-z axis (6 hours total).	Contact Resistance: 10 milliohms MAXIMUM (change from initial) & Discontinuity < **1** microsecond
13	**Shock (Mechanical)**	**50** g's with 3 saw tooth waveform shocks in each ±X,±Y,±Z axes (**18** shocks total).	Contact Resistance: **10** milliohms MAXIMUM (change from initial]) & Discontinuity < **1** microsecond

5.3 ENVIRONMENTAL REQUIREMENTS



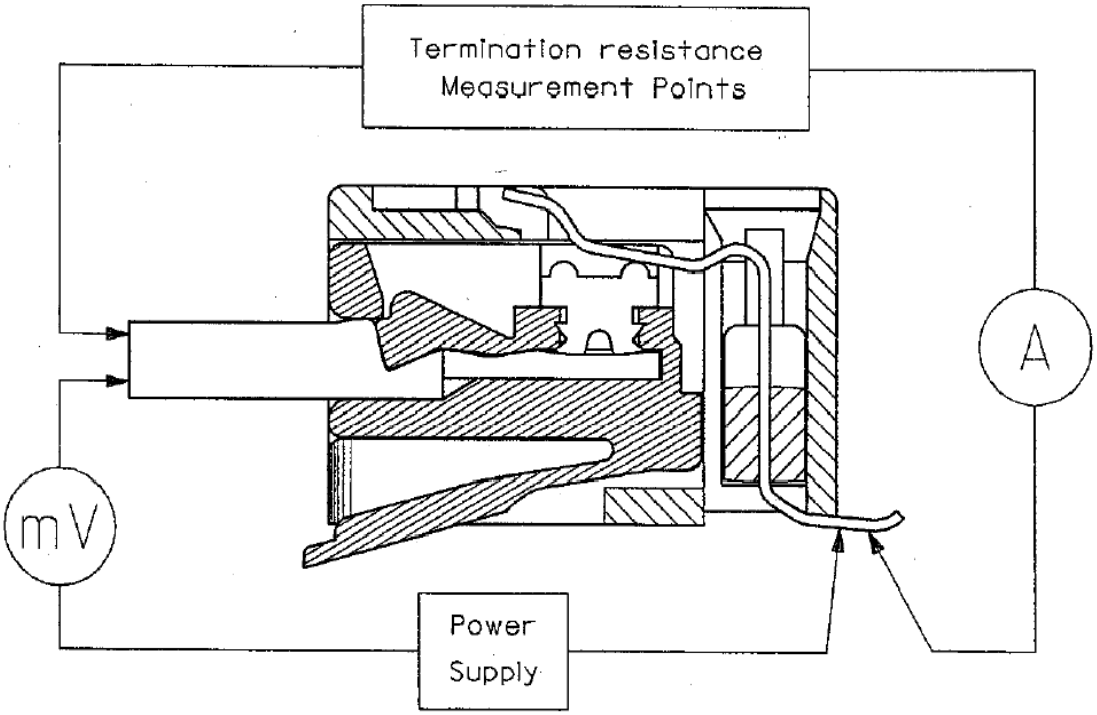
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
14	**Humidity (Cyclic)**	Mate connectors exposed for 10 cycles at 90 to 95% relative humidity with a transition time of 2 hours when increasing and of 3 hours when decreasing the temperature. Temperature Duration +5°C 3 hours +30°C 4 hours	Appearance: No Damage Contact resistance:10 milliohms max change from initial. Dielectric withstanding voltage: no breakdown Insulation resistance: 100 Megaohms min.
15	**Cold Resistance**	Duration: **96** hours; Temperature: **-40 ± 3°**C	**10** milliohms MAXIMUM (change from initial) & Visual: No Damage
16	**Solderability**	Solder time 5± 0.5 seconds. Solder temperature: 260 ± 5°C	Solder coverage: **95**% of the immersed area must show no voids, pin holes.

6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. (Refer to sales drawings).

7.0 GAUGES AND FIXTURES

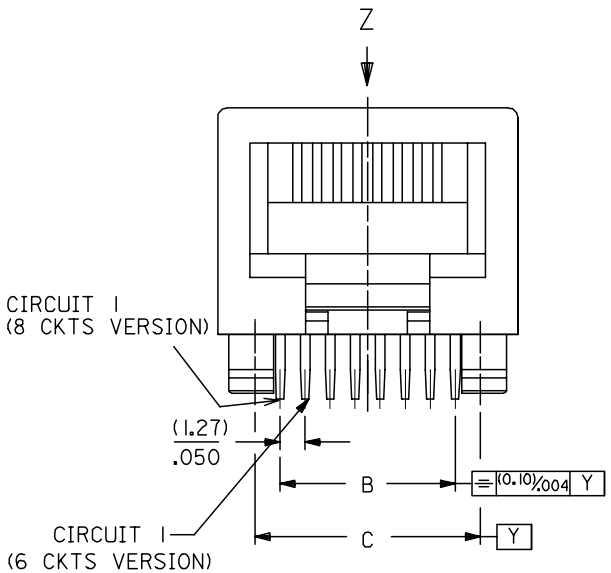
Termination Resistance Measurement Points

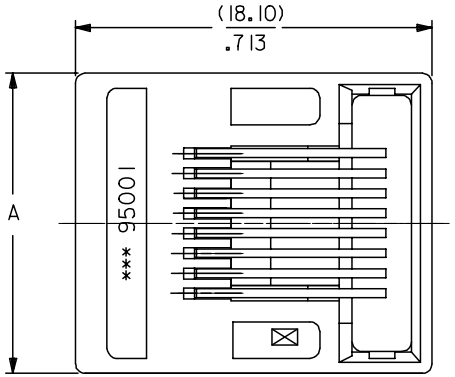


System resistance equals millivolt drop (mV) divided by test current (A)
(Conductor resistance will be deducted from measurement.)

8.0 QUALITY ASSURANCE PROVISIONS

The applicable Molex inspection plan specifies the sampling acceptable quality level to be used. Dimensioned and functional requirements shall be in accordance with applicable product drawings and this specification.

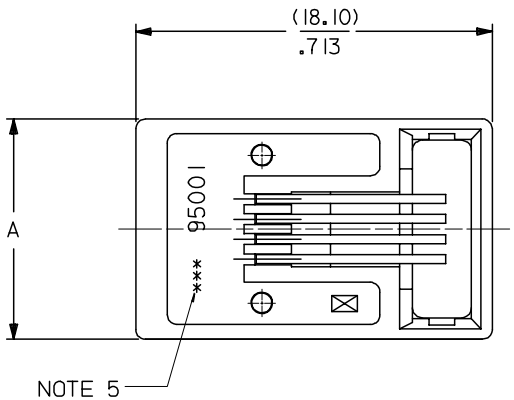


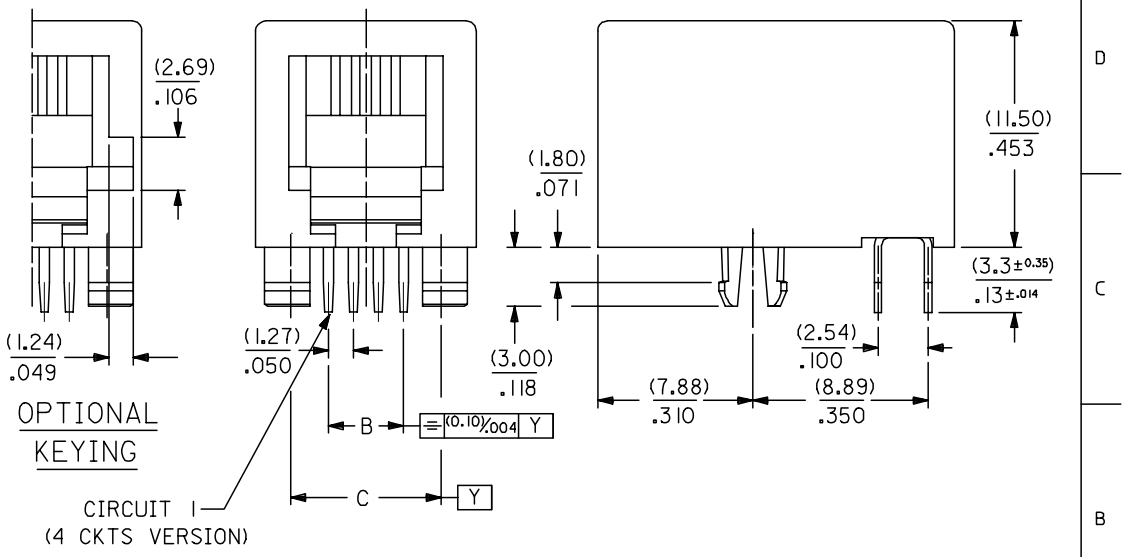


6 & 8 VERSIONS

8 VERSION SHOWN

4 VERSION ONLY





NOTES :

1- MATERIAL:
- -HOUSING: LCP GLASS FILLED UL 94V-0, COLOUR BLACK.
- -TERMINAL: PHOSPHOR BRONZE .

PLATING 2:

POST PLATE (0.00127)/.000050 MIN GOLD IN CONTACT AREA
(0.00190)/.000075 MIN PURE TIN IN TAIL AREA
BOTH OVER (0.00127)/.000050 MIN NICKEL OVERALL.

2- JACK FOR MATING WITH F.C.C. 68 PLUGS 90075 MOLEX SERIES.

3- PRODUCT SPECIFICATION PS-95501.

4- PACKAGING SPECIFICATION PK-95001: STANDARD PACKAGING SHEET 1.
SPECIAL PACKAGING SHEET 2. TUBE PACKAGING SHEET 3.

5- MANUFACTURING I.D. CAN BE EITHER MXF, MG OR MXI.

6- RECOMMENDED PCB THICKNESS: 1.6mm

DIM. \ TYPE	POS. 4	POS. 6		POS. 8
	4 CKTS.	4 CKTS.	6 CKTS.	8 CKTS.
A	(11.18) / .440	(13.21) / .520	(13.21) / .520	(15.24) / .600
C	(7.62) / .300	(10.16) / .400	(10.16) / .400	(11.43) / .450
B	(3.81) / .150	(3.81) / .150	(6.35) / .250	(8.89) / .350

MODIFIED NOTES.
EC NO: E2008-0176 2007/10/05
DRWN:DBYRNES 2007/10/05
CHKD:
APPR:EOMAHONY 2007/10/05
DESCRIPTION
REV

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .006
2 PLACES	± 0.15	± .010
1 PLACE	± 0.25	± ---
ANGULAR ±---°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE	MM/IN
SCALE	4:1
DESIGN UNITS	METRIC
	THIRD ANGLE PROJECTION
DRAWN BY / DATE	DBYRNES 2006/08/02
CHECKED BY / DATE	EOMAHONY 2006/08/12
APPROVED BY / DATE	EOMAHONY 2006/08/12
MATERIAL NO.	SEE CHART SHEETS 4,5&8
TITLE	R/A LOW PROFILE PC JACK 4,6,8 CKTS SIZE THROUGH HOLE VERSION
	MOLEX INCORPORATED
DOCUMENT NO.	SD-95501-001
SHEET NO.	1 OF 5
SIZE	A3

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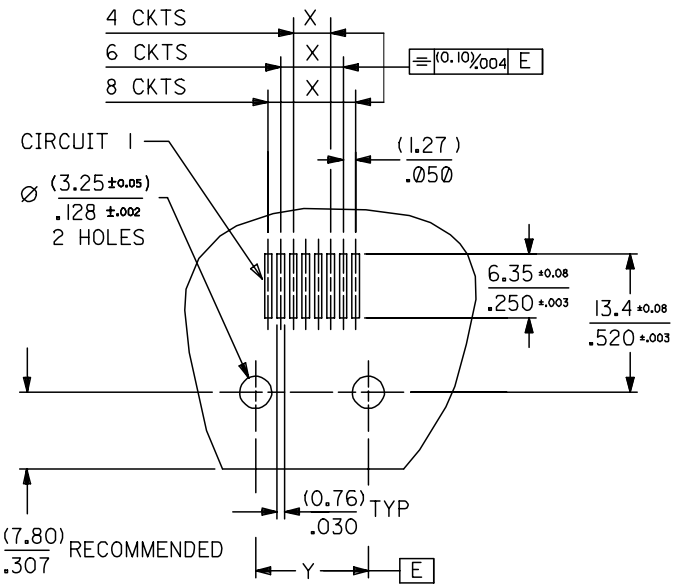
TYPE / DIM.	POS. 4	POS. 6		POS. 8
	4 CKTS.	4 CKTS.	6 CKTS.	8 CKTS.
Y (±0.05)/±.002	(7.62) / .300	(10.16) / .400	(10.16) / .400	(11.43) / .450
X (±0.05)/+.002	(3.81) / .150	(3.81) / .150	(6.35) / .250	(8.89) / .350

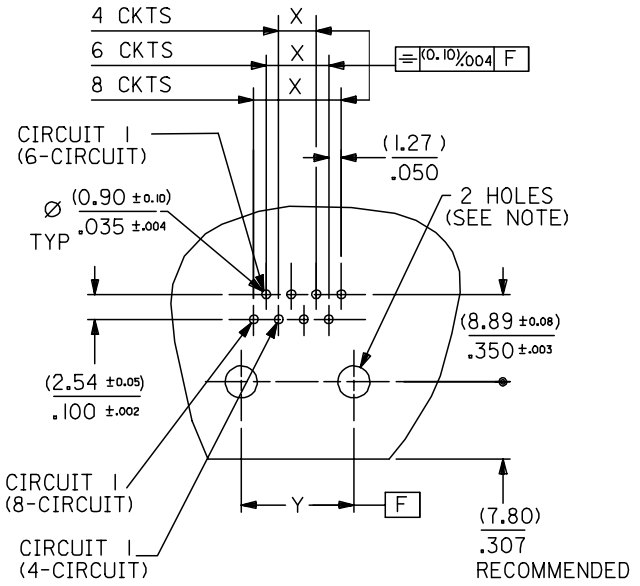
P.C.B. MOUNTING PATTERNS - SEE FROM COMPONENT SIDE

FOR SMT JACK TYPE (SURFACE MOUNT)



FOR ALL VERSIONS, CIRCUIT 1 ALWAYS ON THE LEFT SIDE

FOR STANDARD JACK TYPE (THROUGH HOLE)



NOTE:

FOR CONVECTION SOLDERING: DIA 3.25±0.05 / .128±.002

FOR WAVE SOLDERING: DIA 3.20±0.10 / .126±.004

MODIFIED TABLE
EC NO: E2008-0176 2007/10/05
DRWN:DBYRNES 2007/10/05
CHKD:
APPR:EOMAHONY 2007/10/05
DESCRIPTION
REV B

QUALITY SYMBOLS
▼=0
▽C=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	±.006
2 PLACES	±0.15	±.010
1 PLACE	±0.25	± ---
ANGULAR ±---°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: DBYRNES DATE: 2006/08/02
CHECKED BY: EOMAHONY DATE: 2006/08/12
APPROVED BY: EOMAHONY DATE: 2006/08/12

TITLE: R/A LOW PROFILE JACK PC JACK 4,6,8 CKT SIZE SMT AND STANDARD VERSION

molex MOLEX INCORPORATED

MATERIAL NO.: SEE CHART SHEETS 4,5&6
DOCUMENT NO.: SD-95501-001
SHEET NO.: 3 OF 5

SIZE A3

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STANDARD PACKAGING OPEN TRAY ,SEE PACKAGING SPEC PK95001 SHEET 1

PART NO FOR JACK ASSEMBLY

THROUGH HOLE VERSION

HOUSING SIZE	LOADED CONTACTS	PLATING	LCP GLASS FILED 94VO,COLOR BLACK.							
			NO KEY NOT RIBBED	TOOLED	KEY NOT RIBBED	TOOLED		TOOLED		TOOLED
4	4	2	95501-2441	X						
6	4	2	95501-2641	X						
6	6	2	95501-2661	X						
8	8	2	95501-2881	X	95501-2882	X				

ORIGINAL
EC NO: E2007-0117 2006/10/11
DRWN:DBYRNES 2006/10/11
CHKD:
APPR:EOMAHONY 2006/10/12
DESCRIPTION
REV
A

QUALITY SYMBOLS
▼=0
Ⓒ=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± ---	± ---
1 PLACE	± ---	± ---
ANGULAR ±---°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY
SCALE: ---
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: DBYRNES DATE: 2006/08/02
CHECKED BY: EOMAHONY DATE: 2006/08/12
APPROVED BY: EOMAHONY DATE: 2006/08/12
MATERIAL NO.: SEE CHART

TITLE: LOW PROFILE R/A JACK STANDARD T/HOLE VERSION STANDARD OPEN TRAY VERS

MOLEX INCORPORATED

DOCUMENT NO.: SD-95501-001
SHEET NO.: 4 OF 5

SIZE: A3

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