

Molex 44915-0011 PDF

深圳创唯电子有限公司

<http://www.molex-connect.com>



PRODUCT SPECIFICATION

RJ-45 MODULAR PLUGS FOR PROPOSED CATEGORY 6 APPLICATIONS

1.0 SCOPE

This specification covers the performance requirements for the RJ-45 modular plugs for proposed Category 6 applications. These plugs are shielded or unshielded.

2.0 PRODUCT DESCRIPTION

2.1 PRODUCT NAME AND SERIES NUMBER(S)

RJ-45 Modular Plug 44915

DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings (SD-44915-001) for information on dimensions, materials, plating and markings.

2.2 SAFETY AGENCY APPROVALS

UL File Number.....E107635

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

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| REVISION: A2 | ECR/ECN INFORMATION: EC No: UCP2006-1062 DATE: 2005/11/04 | TITLE: PRODUCT SPECIFICATION RJ-45 MODULAR PLUG FOR PROPOSED CAT 6 APPLICATION | SHEET No. 1 of 5 |
| DOCUMENT NUMBER: PS-44915-003 | CREATED / REVISED BY: LSCHMIDT 2005/11/04 | CHECKED BY: AELHAG 2005/11/07 | APPROVED BY: FSMITH 2005/11/09 |



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 ground. | No breakdown; current leakage < 5 mA |

5.1.1 TRANSMISSION PERFORMANCE

Plug performance meets the proposed TIA/EIA-568-B specification for modular test plugs used to qualify category 6 modular jacks. When used with a category 6 jack, the resulting connecting interface meets category 6 connecting hardware specifications as defined in TIA/EIA-568-B.

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| REVISION: A2 | ECR/ECN INFORMATION: EC No: UCP2006-1062 DATE: 2005/11/04 | TITLE: PRODUCT SPECIFICATION RJ-45 MODULAR PLUG FOR PROPOSED CAT 6 APPLICATION | SHEET No. 2 of 5 |
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5.2 MECHANICAL REQUIREMENTS

| | DESCRIPTION | TEST CONDITION | REQUIREMENT |
|--|-----------------------------|---|---|
| | 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 $\pm X, \pm Y, \pm Z$ 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 \pm 6 mm (1 \pm 1/4 inch). | 89 N (20 lbf) MINIMUM retention force |
| | Shock (Mechanical) | Mate connectors and shock at 50 g's with three saw tooth wave form shocks in the $\pm X, \pm Y, \pm Z$ axis (18 shocks total). | 10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond |

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PRODUCT SPECIFICATION

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 |

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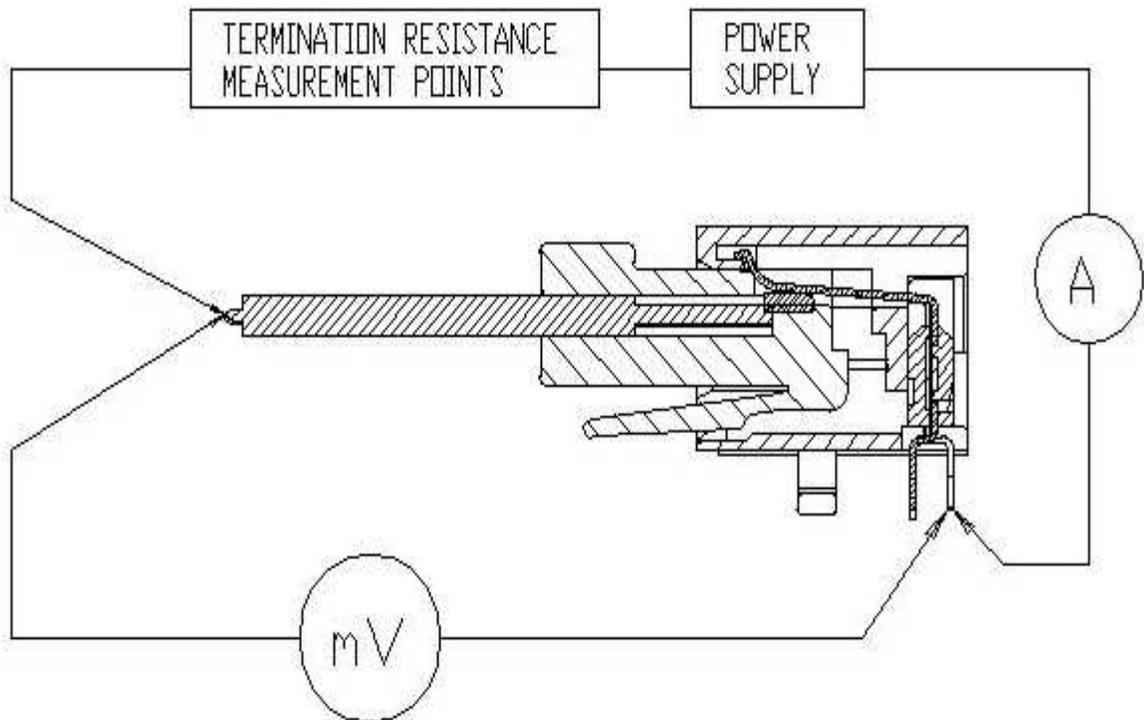


PRODUCT SPECIFICATION

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

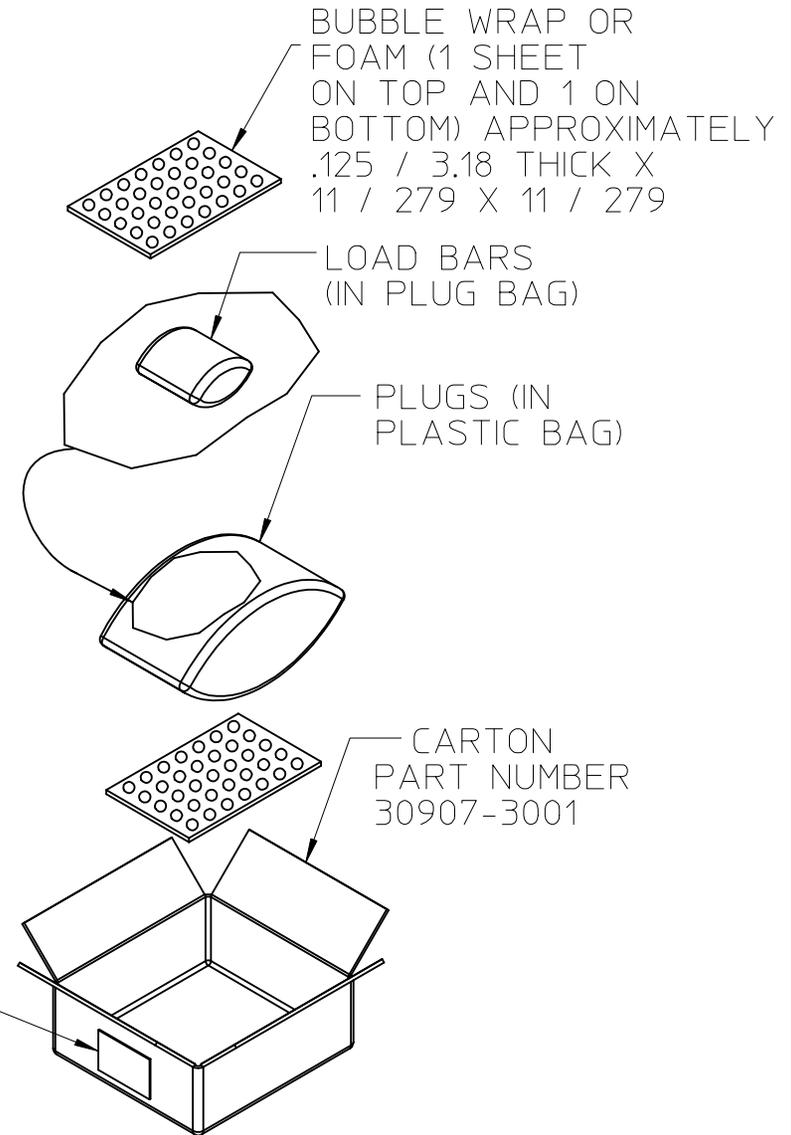
Connector and plug terminals and wire conductor bulk resistance to be subtracted from measurements

8.0 OTHER INFORMATION

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NOTES:

1. 44915 SERIES PLUGS TO BE BULK PACKED IN PLASTIC BAGS.
QUANTITY: 1000 PCS. PER BAG.
2. LOAD BARS TO BE BULK PACKED IN 1 PLASTIC BAG.
QUANTITY: 1000 PCS. PER BAG.
3. NO LABELS OR OTHER IDENTIFICATIONS ALLOWED INSIDE OR ON THE BAGS EXCEPT FOR PART NUMBER, QUANTITY, DATE CODE, AND LOT INFORMATION.
4. PLUGS AND LOAD BARS TO BE PACKAGED TOGETHER IN PRIMARY CARTON: MATERIAL NUMBER 30907-3001.
5. PRODUCT LABEL TO BE PLACED ON EACH BOX WITH THE FOLLOWING INFORMATION:
 1. ASSEMBLY MATERIAL NUMBER,
 2. PRODUCT DESCRIPTION,
 3. TOTAL QUANTITY OF ASSEMBLIES IN THE BOX,
 4. MANUFACTURING DATE CODE.
6. FOR PART NUMBERS 44915-0001 TO 44915-0023.



| ADD NOTE 6 EC NO: UCP2014-4149 DRWN: NGUYEN 2014/04/08 CH'KD: JBELL 2014/04/08 APPR: FSMITH 2014/05/05 | DESCRIPTION REV | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE IN/MM | | SCALE 1:10 | DESIGN UNITS INCH | THIRD ANGLE PROJECTION | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------|--|---|-----------|----------------------------|------------------------------|---------------------|----------------------|------------------------|----------|-----------|------------|----------|------------|------------|---------|------------|-----------|---------|-------|-------|---|----------|------|-----------|----------|------------|------|-----------|----------|-------------|------|---------|----------|--|--|
| | | $\nabla_A = 0$ $\nabla_C = 0$ $\nabla_E = 0$ | <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>\pm ---</td> <td>\pm ---</td> </tr> <tr> <td>3 PLACES</td> <td>\pm ---</td> <td>\pm .006</td> </tr> <tr> <td>2 PLACES</td> <td>\pm 0.13</td> <td>\pm .010</td> </tr> <tr> <td>1 PLACE</td> <td>\pm 0.25</td> <td>\pm ---</td> </tr> <tr> <td>0 PLACE</td> <td>\pm</td> <td>\pm</td> </tr> </tbody> </table> | | mm | INCH | 4 PLACES | \pm --- | \pm --- | 3 PLACES | \pm --- | \pm .006 | 2 PLACES | \pm 0.13 | \pm .010 | 1 PLACE | \pm 0.25 | \pm --- | 0 PLACE | \pm | \pm | <table border="1"> <thead> <tr> <th>DRAWN BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>MARGUL IS</td> <td>01/04/25</td> </tr> <tr> <th>CHECKED BY</th> <th>DATE</th> </tr> <tr> <td>MARGUL IS</td> <td>01/04/25</td> </tr> <tr> <th>APPROVED BY</th> <th>DATE</th> </tr> <tr> <td>COMERCI</td> <td>01/04/25</td> </tr> </tbody> </table> | DRAWN BY | DATE | MARGUL IS | 01/04/25 | CHECKED BY | DATE | MARGUL IS | 01/04/25 | APPROVED BY | DATE | COMERCI | 01/04/25 | TITLE PACKAGING SPECIFICATIONS FOR RJ-45 CAT6 PLUGS | |
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| 1 PLACE | \pm 0.25 | \pm --- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| B1 | REV | ANGULAR $\pm 1/2^\circ$ | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | MATERIAL NO. SEE NOTE 6 | DOCUMENT NO. PK-44915-003 | SHEET NO. 1 OF 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |