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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

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| <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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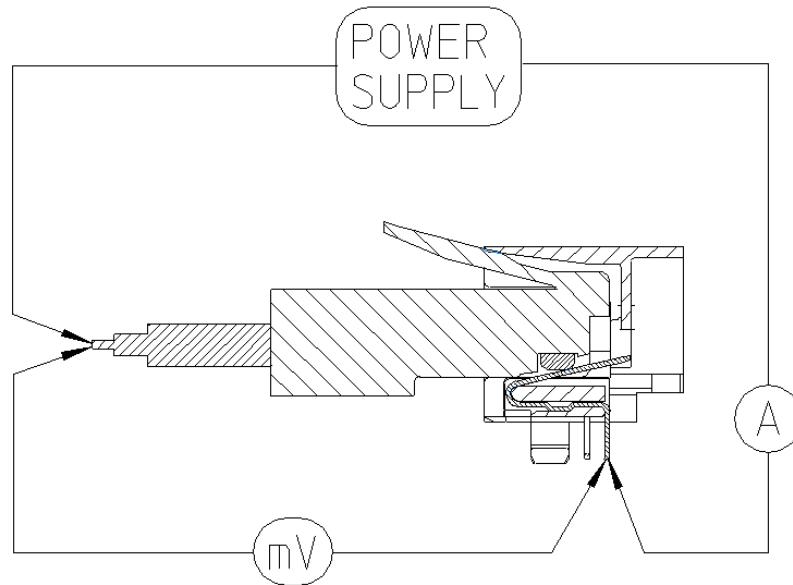


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6.0 PACKAGING

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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