



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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PS-43860-003	NNGUYEN	JBELL	FSMITH	



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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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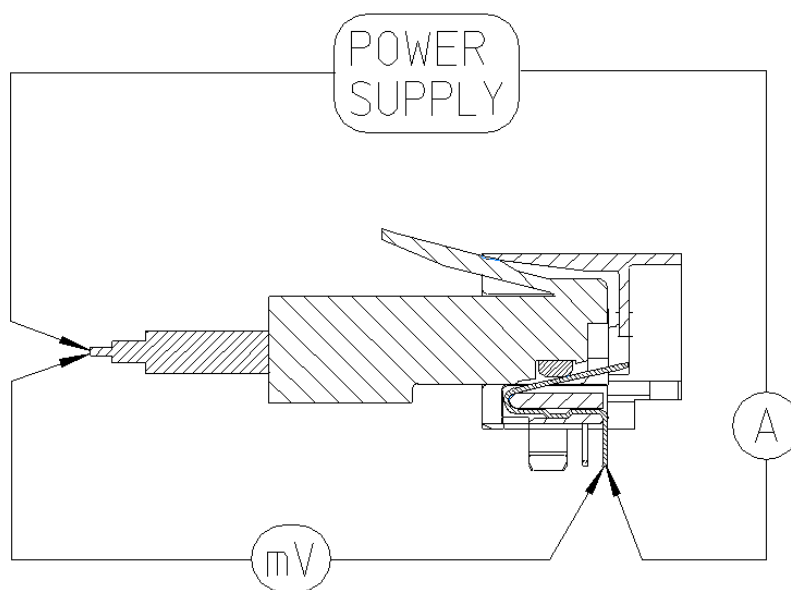


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6.0 PACKAGING

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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